

100 NEW MODEL BUILDING IDEAS

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model
car *Science*

MAY 1965

35¢

BEGINNING
'65's BIGGEST
CONTEST

Wiring
Engines
for
Super
Detail



Slot Racing

GEAR SHIFTS for SLOT RACERS
LANDSCAPING H.O. TRACK
"SOUPING UP" PITTMAN ENGINES

Hot Idea

FIRE ENGINE MODELS





'56 Chevy

Revell brought you the '57 Chevy and then the '55. The '56 tudor sedan completes the trio with another of the "most wanted" Chevys for the best building and customizing possibilities yet—custom rear seats, front bucket seats, custom door panels, full console with opening compartment and a movable gear selector. Hood, both doors and trunk actually open. Custom body parts include rolled front and rear pans, split rear bumpers with taillights and front bumper and grille. With the chrome side trims provided, you can build either the Bel Air, 210 or 150 series. For added realism, kit also includes Buick Wildcat wheels, two mag wheels, two slicks, Goodyear tires, highly detailed Chevy V8 engine with speed equipment, turnable front wheels, metal axles and a detailed chassis with exhaust pipes, mufflers and shocks. Special mounting pieces in the kit allow you to use a Revell model car racing chassis and motor for wild raceway performances.

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Here's the all-time drag strip winner in large 1/8 scale from Revell...the "bike" people. The competition-minded modeler will really dig the detail of this beauty with white and chrome parts. The ultra-small fuel tank, straight handle-bar and high traction rear slick tire are authentic in every way. Everything's right in the kit for a winning model...all chrome engine, detailed rubber tires, competition exhaust system and fuel tank, ignition wiring, fuel lines, control cables and competition seat. Rev 'er up!

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Model Car Science May 66
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Stephen D. Urette
EDITOR

Bob Hoepfner
Raymond E. Hoy
Bob Paeth
George Siposs
EDITORIAL CONTRIBUTORS

James M. Grey
C. Richard Grey
ART DIRECTOR

Tom Marinello
ART ASSOCIATE

Jim Miller
EDITORIAL DIRECTOR

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EASTERN:

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Don Werner
Gordon Behn
PUBLISHERS

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BUSINESS MANAGER

D. L. Ruth
PRODUCTION DIRECTOR

model car *Science*

Volume 3, Number 5

May, 1965

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ON THE COVER — Chutes pop on MPC's fabulous drag version of the Corvette Sting Ray, and you'll be able to put that added realism into your drag racing with the sensational "Gear Shift" trick shown on page 46 this month. For an off beat bonus, ride along with Tom Showers, Chief of the Luna Beach fire department. His story starts on page 24. For slot racing at its best, turn to page 54 and check the most exotic track in Southern California.

You're in complete control with a Strombecker throttle in your hand!



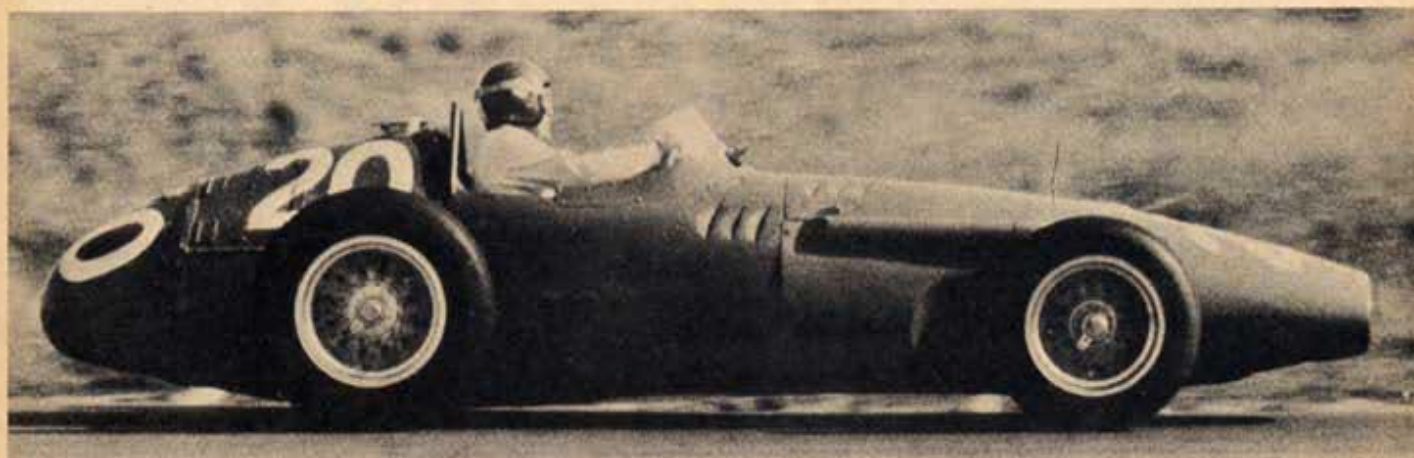
Strombecker knows that in model road racing, as in the real thing, split-second control is vital. That's why each rheostat hand throttle supplied with a Strombecker set is engineered for instant response in the car it controls. That's why Strombecker has constantly improved its controllers through the years, adding such industry innovations as comfortable, trigger-action grips . . . scale mph indicators . . . instant braking action . . . and super-sensitive spring control. Strombecker, the world's most respected name in road racing, brings its know-how and experience to the advanced hobbyist field, too . . . with a highly sensitive Competition Controller featuring improved thumb control and braking action, in easy-to-handle polystyrene cases. Strombecker puts you in complete control when you use Strombecker Raceways Controllers.

1959 Strombecker introduces the model road racer controller. A simple, push-button affair, it is soon replaced by a pistol-grip, variable speed rheostat. *That same year, Lee Petty was named Grand National Champion in stock car racing at NASCAR.*

1962 Strombecker's new pistol-grip, rheostat-control throttle with in-scale speedometer means smooth acceleration, variable speed for cars. *That same year, Sweden's Carlsson and Haggbom drove the smallest car ever to win the Monte Carlo Rally—a Saab—to victory.*

1963 Strombecker rheostat-control throttle redesigned for more comfortable use and improved electrical contact. A cooler case and 3-coil spring turn the trick. *That same year, Eugene Bohringer averaged 80.899 mph in a Mercedes, to win the 400-mile "Golden State" stock car road race at Riverside, California.*

1964 Push-button braking action is added to the Strombecker rheostat throttle for pinpoint control every second of the time. A competition-class Strombecker Raceways Controller with split-second thumb control plunger also makes its bow. *Also in 1964, Mel Kenyon took 7 "firsts" and 11 "seconds" in "Offy 110" (midget) races around the country to be named World Champion Driver on total points.*



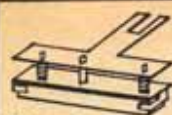
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*** MODEL *** MAIL ***

WHAT'S WITH THE WASP?

I have just purchased the Kemtron (8 volt) X503 Wasp. I cannot make the motor develop very much R.P.M. Do you have any ideas as to what seems to be my problem?

Could you tell me how many feet it would take using the following gear ratios to wind up 1.5-6.1 (progressing by .5)?

What are the best tires to use, the make, soft or hard rubber, dimensions?

Eric Rowland

Tujunga, Calif.

You must have your gear train and axle loaded with excess friction to prevent the 503X from coming on as it should. Recheck your gear alignment and clearance as well as the axle alignment. Perhaps your tires are dragging on the body some place. If all these things turn freely there is no reason why it should not get up and go.

There are just too many variables to even begin to quote acceleration figures or distances. As an illustration, track voltage, track surface, tire diameter and tread width, tire formulation, total car weight and its distribution as well as its rolling resistance are all factors besides the gear ratio that have a determining effect on how far and how fast any car will go in a given time.

Tires fall into somewhat the same category. Total weight and its distribution, center of gravity, type of track to mention a few things that affect the type best suited to any one condition. Only experimenting will provide the final answer.

WILL IT FIT?

Your help is needed very badly! Will a M.P.C. Corvette frame fit my A.M.T. '57 T-Bird? If so, how much work will have to be done? Will Revell's "427" Ford fit the 'Vette's frame? Also, I think they should make a special class for ages 16-19 in contests because not many 16-17-18 year old modelers can keep up with the ones 20-35. I think you should have the readers write in and vote whether they are for it or not.

Dave Albrecht

Chicago, Ill.

The Corvette wheelbase is shorter than the 'Bird, so the frame will have to be stretched out somewhat so the wheels will fall in line with the wheel wells.

The Ford and Chevy engines are approximately the same size so it should fit with no trouble.

Not all contests make a definement of

age groups but the Revell-sponsored Nationals are divided into three age groups: Junior, Intermediate and Senior. Somewhat in keeping with your suggestion.

WHAT'S WITH AUTO-RAMA?

I have a Gilbert Auto-Rama race set. What scale is it? Why no articles on Auto-Rama set?

Joe Hutchisson

Sedro Woolley, Wash.

The Gilbert sets are approximately 1/48 scale. About the same as the large Aurora set. This scale has not been among the most popular. Today, the majority of interest is in H.O., 1/32nd, and 1/24th scale and most of our subject matter is directed towards these sizes.

LOTS OF QUESTIONS

I would like to know how to wire a dragster fuel tank. What use are these tanks in a drag interior? How do I wire the ignition, carbs and fuel lines of a car engine? How do I wire a drag chute pack? Where do the drag chute lines go on an open one? Will A.M.T.'s or Revell's 283 Chevy engine fit A.M.T.'s '58 Chevy? Will A.M.T.'s or Revell's Pontiac 421 fit an A.M.T. '64 Grand Prix? Will Revell's Cad engine fit in a JoHan '31 Cadillac?

Jim Rossen

Warren, Michigan

We will try our best to answer your questions, and in order.

First, the amount of lines and their routing depend upon the type of fuel system used. A carburetor setup is much different than an injector setup and these will vary depending upon the installation and type of equipment used.

A fuel tank is for fuel whether it's inside a car or not.

Each type of engine setup will require a different set of standards to detail. In general, a wire goes to each spark plug from either the distributor or the magneto which ever the engine is equipped with. Fuel lines run from the tank to whatever type of pressure pump is used and then to either the carburetor or, if duals are used, to a tee and then to the carbs; if more than two are used the primary line will terminate in a fuel block and then individual lines to each carburetor.

One chute runs from the snap ring forward to the drivers compartment and has a ring on the end installed close to either his right or left hand, this would depend on the driver. The lines are attached to a single webbed belt

Continued on page 8

MODEL CAR SCIENCE



Why do most model contest winners build around **AMT** kits?

HERE ARE JUST A FEW REASONS:

- **AMT's wider choice of kits** gives 'em more kinds of goodies from more car models (over 50 kits now, and more on the way). It's a breeze to cross-breed cars, go way-out, and pile up points for originality, new design, styling and detail. Like mixing AMT's 62 Corvair body, a big blown mill from AMT's '57 Chevy kit, and innards from the '32 Ford Custom kit. Every detailed part to scale, of course!
- **AMT interchangeable engine and driveline parts.** Drop AMT's 427 Ford engine on a '32 Ford coupe chassis. Or slip a big, blown Chrysler hemi in a '36 Roadster. They fit right now. Ditto for almost any AMT power combo you can name.
- **AMT bodies—channel, chop or section 'em.** They fit, usually without any other surgery. For instance, chop the top of AMT's '57 Ford, then drop on the chopped top custom glass from the '57 Chevy kit for a glove-snug fit. Simple!

A good start's not enough. Be right at the finish, too.

- **AMT Body Putty** is made for model work. Experts use it to fill scratches, hide mistakes, build in perfect contours. It dries fast and sands out easily.
- **AMT Custom Spray Lacquers** dry fast, hard and smooth. Most winners use 'em because they can get the results they want. They're easy to use, dry with a real-car look, and come in 30 authentic (some are wild) car colors. Rub and wax 'em for the living end.

Plus many other reasons the winning experts won't tell even us. Next time, make the winner's circle yourself. Build around AMT kits and bring home the gold!



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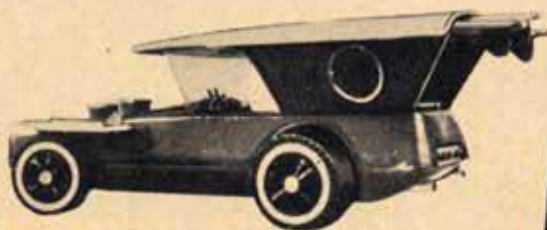
MODEL
KITS

If you get a boot out of the unusual, these two kits from Hawk are right up your runway. No modeler's collection is complete without these two front and center. Your dealer's got 'em both for you now!

WILD WOODIE

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DIGGER—THE WAY-OUT DRAGSTER

Admit it, this guy's got to have all eyes on him. A strange and "Weird-Oh" magnetism with everything going for him but the motor. Talk about custom cars, there's nothing to match it. Like it's unique.

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And if you want even more fun, ask at your toy or hobby store for "Weird-Ohs," "Frantics" and "Silly Surfers." Hilarious, terrific and just \$1.00 each.

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Modeling

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that is usually attached to a bracket on the rear of the frame.

You should have no problem with the AMT mill in an AMT body. The front mounted blower will have to be omitted on the Revell engine.

Both 421 mills are Pontiac's and the Grand Prix is a Pontiac, don't see why not.

Revell's Cad engine should have tons of room. The engine is 1/25 scale and the car 1/24, this in itself will aid the installation.

On any of the above engine swaps some minor rework will have to be done, such as establishing engine mounts, etc. But the area available and the size of the engine will present no major problem.

4 WHEEL DRIVE

I would like to know how I could fit two Mabuchi size motors on a chassis made up of 3/16" size aluminum tubing, thus, four wheel drive. One motor in front, one in back.

Al Sweeney
Coronado, Calif.

Too much depends upon the scale you are working in and what the wheelbase is to be. Without knowing these, we can't offer much help. There were two articles on this subject in issues that appeared early last year. Check your back issues as these may be of help to you in solving your questions.

POOR PERFORMANCE

I own an Eldon figure eight track with banked turns. When both lanes are being used, one of the cars tend to fall off the inside of the turns. Both cars are of their late model stock series, one a Plymouth and the other a Pontiac. Also, there doesn't seem to be enough power on the track. Both controls have already been replaced once. I am using their standard 6 volt DC power pack. There are 20 pieces of track, plus one cross track. When the cars do run they are very slow and sluggish. They have to be flat out to get the cars started on their way. Is there too much track for the power? If so, what other power pack could I use? If the power pack is not too small, what is wrong and how do I fix it?

Bruce Ryle
Rising Sun, Indiana

If all moving parts of your cars turn freely with no restrictions or drag between tires and body or between the gears themselves, it would appear to be poor electrical connections some place in the circuit. Start with the cars. Clean the commutators. Check the wire connections at motor and at pick ups, clean the pickup braid and all track metal as well as the joints also the wiper inside the controller. If all these are in good clean working order, it should go.

MODEL CAR SCIENCE

Push this plunger for
INSTANT ZOOM!



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Race with this heavy duty precision beauty designed for the discriminating slot racer. The handle fits perfectly in the palm of your hand for cool, fatigue-free operation. Inside the handsome Lexan plastic case is a specially designed fuse wire to prevent damage to expensive operating parts. Nichrome wire wound resistor to withstand high temperatures. Ceramic core with epoxy windings to prevent looping. The plunger has just the right tension for fatigue-free racing — all this and lightweight too!

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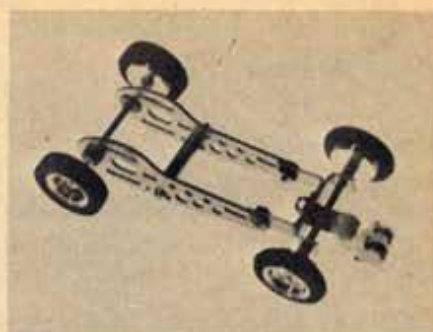


NEW TO SCALE

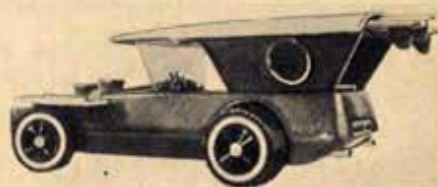


Two entirely new scale models, the Porsche 904 GT and Cobra GT are the latest additions to the Strombecker stable. Both new models are finished in easily detached sections. Their low profiles are made possible by Strombecker's fast new, cool-running, in-line motor. Both have clear windows, drivers, chrome plated wheels and pipes. Retail for these kits will be \$3.95. Built-up models will sell for \$5.95.

Now you can buy a display case to fit any model you have, no matter what size. It comes in kit form and is easily assembled with a little cement. The kit consists of a wood grain vacuum formed plastic base, clear formed ends and clear cover cemented together in a chrome plastic moulding strip. These cases come in all sizes from 3 to 12 inches wide and 6 to 36 inches long with heights to 24 inches. Special sizes may be had to order. All dimensions are inside so as to clear models. The case in the picture displaying the metal Duesenberg model is 6 x 16 x 6 and retails for \$4.50. For complete information write to Maryland Model Co., Dept. MCS, Box 100, Wittman, Md.



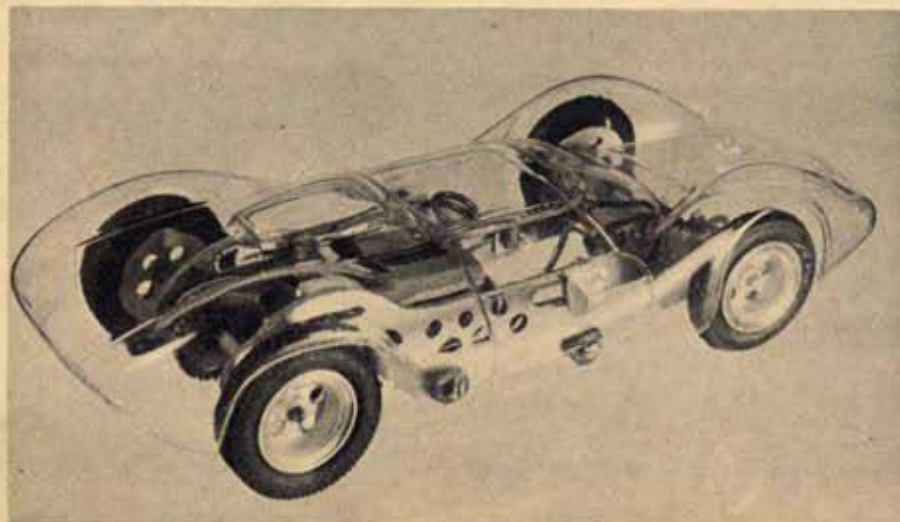
Unique engineering has upgraded the front end on their "Lite-Ning" chassis. Modified version comes completely assembled and ready for 15 different motors and a body. These new versions will sell for \$4.95 each and will be available in either 1/24 or 1/32 scale. For additional information, contact Unique Engineering, Dept. MCS, 139 Nevada St., El Segundo, Calif.



Hawk's "Wild Woodies," is a jazzy, all-purpose wagon that makes the surfing scene just to be seen in the better places. Even a genius will find this \$1.00 kit a challenge to customize. Miniature surfboards provide the fender design for this one, then, simulated grain paneling gives the "feeling" of an actual wood body, and a port-hole window rounds out the seaworthiness of this amazing vehicle. Worth mentioning too, are the tiller steering wheel and the interior roof storage compartment for those surfboards.

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READY TO WIN!

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- LOTUS 30 **\$7.95**

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by Monogram



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PICKUP Precision molded in durable Nylon for smoothest possible slot running. Compact design preferred by the experts. Trouble-free flexible braided wire pickup.

OTHER PARTS Authentic decal markings. Mirrors, filler caps, headlights and racing drivers. Wheel inserts that stay put. Precision machined screws and nuts, brass screw inserts for body mounting, combination wrench and screwdriver.

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World's most complete line of equipment for Commercial Raceway Centers

MCS-5



This new Ronson Varaflame torch can be used for softening putty, refinishing furniture, soldering model cars and jewelry, plus countless other household and hobbyist uses. An additional feature of this versatile little torch is that it can be set on a table like a bunsen burner for jobs that require hands free. The \$4.95 Torch is available nationally at hardware stores, hobby shops and auto accessories stores.



For the dealer contemplating installation of a raceway, a complete central timer and power supply system has been developed by American Model Car Raceways.

The Master Power Supply is a 30-amp, variable-voltage unit which will operate at from one to eighteen volts and comes complete with voltage meter and indicator light.

The Central Timing Control System has eight one-hour timers which are set for the amount of time purchased by the customer. A red jewel light for each of the timers remains lighted during the rented time, thus the proprietor can tell at a glance which lanes are available to rent.

The units may be purchased separately or complete as shown from American Model Car Raceways, Inc., Dept MCS, 8447 Wilshire Blvd., Beverly Hills, California.

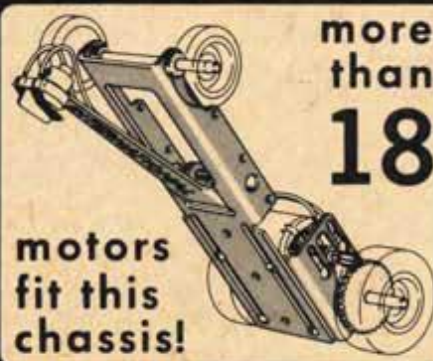
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Meet Monogram's new happy monster: Fred Flypogger. He's the star of a new series of kits designed by Stan (Mouse) Miller, famous for the cartoons he paints on sweat shirts at custom car shows and drag races. Fred will appear as a variety of characters, starting with "Super Fuzz." Jack M. Besser, president of Monogram, described "Super Fuzz" as the "kind of policeman who turns up in nightmares, but actually has a warm, kind heart and wouldn't hurt a fly." In fact, Fred Flypogger keeps a fly as a pet — that's where he got his name. The fly is Miller's personal trademark and appears in all his cartoons. Fred Flypogger as Super Fuzz has a blue gumball machine as a helmet and his eyes can be positioned anywhere on his face to change his expression. He rides in a supercharged rod prowler, complete with machine gun on the back. A plastic fly and plastic mouse are with him. The model is 6-1/4 inches long, five inches wide and 6-3/8 inches high. There are 38 white plastic parts and four transparent blue parts. Also in this \$1.00 kit are cartoon-style assembly and color information.



MDC is now offering a 32 or 36 tooth Hypoid gear for the low price of 29¢ each. This new gear allows a motor to be mounted 3/16" below centerline of wheels, lowering the Center of Gravity and increasing cornering stability tremendously. It also works with standard pinion gears. For more information, contact Model Die Casting Inc., Dept. MCS, P.O. Box 926, Hawthorne, Calif.

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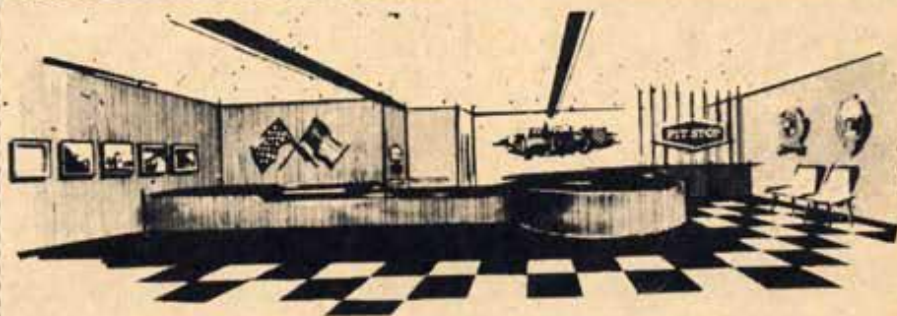
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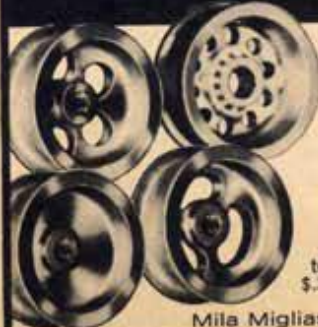
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MODELING TIPS FROM THE PROS

PAINTING SNOW JOB

I get a flawless paint job by putting a model in a wet shoe box that is very clean and give it a fine coat of paint. Then I put the wet lid on the box and let the model cure for six hours, then bury it in about three feet of snow for twenty-four hours. When there is no snow, I have found it is best to leave the model in the box for thirty-six hours and then give it another coat.

Steve Martenson
Miles City, Mont.

A SHOCKING TIP

The bar that holds the strap on a wrist watch can be used to make a great working shock absorber that looks and works like the real thing.

Phil Boudreau
Detroit, Mich.

CUSTOMIZED UPHOLSTERY

Here's an easy way to upholster interiors, especially in corners, around seat backs, etc. First, I spread the area to be upholstered with a thick coat of brush paint. Then, before it dries I sprinkle on some fine sawdust and let the paint dry. Next, I paint it in the color I desire (a thin, flat color works best here).

Ronald Boucher
Manchester, N.H.

TRAFFIC CONES: 1¢ EACH

To make traffic cones for a slot track, just cut yellow golf tees in half and dip the small end in red paint. They're very realistic for marking off intersections, escape roads or pit areas, etc.

Erban Erickson
Rockford, Ill.

INSTANT LEATHERETTE

To make flat colors shine to a semi-gloss for a leatherette look in interiors, rub some vaseline on the interior parts. After this, wipe the excess off with a lint free cloth.

Wesley Zane
Honolulu, Hawaii

PAINTING POINTERS

I thought you might be interested in a new technique of painting metalflake on model cars: start by picking the color you want, preferably not a Kandy Color. Spray this on the model (as directed) and let it dry thoroughly. Then add about 1/2 table spoon of gold paint (Pactra, bottle). Paint this on the model and let it dry overnight. One coat is usually enough, but if you want the flakes closer or farther apart, paint on more or less coats, as you wish. If

the flakes seem to be bunched together, don't worry about it because they will even out as the paint dries, although it is better to mix the gold and clear paint as well as possible. Before you apply the clear-gold mixture, make sure the model is *completely* free of dust. Using this procedure will give you a model with an *extremely* high gloss.

Alan Watkins
Portola Valley, California

I would like to let you in on the biggest thing since metalflake. It is watercolor! You just brush it on (it doesn't matter if it is uneven) then take a cleaner or soft cloth and spread it out. You can make all kinds of designs in it, and if you get tired of it, just wash it off.

Tom Stober
Holgate, Ohio

CHROME TRIM TIPS

For more realistic chrome side trim and window mouldings, use chrome tape. This tape is available in widths ranging from 1/64 inch to one inch. Tape will flow around mouldings and into crevices with slight pressure. One roll is enough for several cars. It is available from stationery stores, blueprint houses, or can be ordered directly from Auto World, Box 916, Dept. MCS, Scranton, Pennsylvania.

Michael Edmond
Milwaukee, Wisconsin

RADIUS REAR WHEEL WELLS

I have a tip on how to style radius rear wheel wells: To duplicate the front wheel radius on the rear fenders, first trace the front well outline on a piece of paper. Then, cut out the paper pattern. After you have sliced the rear well to the shape of the pattern, file it smooth.

Randy Bethune
Bradford, Pennsylvania

ASSAULTING TRACK RECORDS

Here is an idea to pass along to others: we have found one of our most popular events at our track is the record assault we have in each class at every race. Our track, like many others, has one slot that seems to be just a little better than the others. So, using this slot, we let each driver qualify his car for the evening's races by holding time trials on the slot selected by our membership. This is done by placing the car on the starting line and then the transformer is turned on for one minute and the object is to cover as much distance as possible in this time. We have a record for each class and each time it is broken the driver is awarded 10 points to add to his point standings for the season. We also give the cars points for the

Continued on next page

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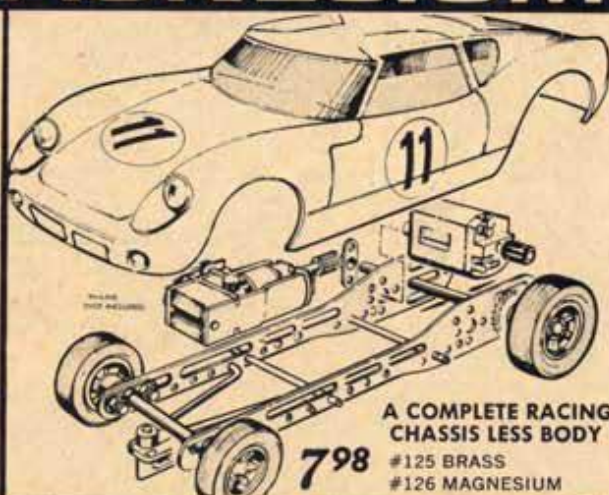
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MDC

event itself. For instance, if we have 10 stock cars entered we give 10 points for the fastest time, 9 for the second fastest time and on down. The track record for each class is posted at the track and everyone knows what it is and they are always trying to break it.

Our track is marked in small letters all around the edge of the course. It is divided into number sections this way and a car is given the number of laps covered in one minute plus the number of sections covered on the last uncompleted lap. This way we have times that are close but there are no ties. (Example: 16 lap + 4 sections is listed as 16.4, the larger number following the lap number being the faster time.) Another feature of our track is that it is inlaid so the surface of the track, pits and surrounding area are flush, thus eliminating the fences and permitting the rear end to slide wide in the turns. Incidentally, we have a club library that is made up of your mag and others. Our members take the books home with them after the races to get more ideas for their cars.

Ron Bennett

I have a helpful hint for your readers on how to have an "operating" rear-seat speaker.

All that is required is a good quality earphone from a transistor radio. All you do is make a hole the size of the earphone beneath the rear seat. Next make a 1/4" dia. hole on the shelf behind the seat. Then fasten the "flex" part of a Flex-Straw to this hole. The other end is placed over the hole in the earphone. Finally, plug in the ear-phone, turn on the radio and, presto! Music!

Erik Mollo Christensen
Lexington, Massachusetts



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FIRST REPORTS

BIG NEWS IN CAR KITS

Strombecker

The fabulous Ferrari Formula 1, the car that John Surtees drove to win the 1964 Grand Prix driver's championship, heads the list of new items for the slot racing buff from Strombecker. This sleek new 1/24 scale "bomb" features the blazing Scuttler 12 volt motor, metal gears, brass chassis, centerless ground axles, and an adjustable, low-drag 180° nylon pick-up. The kit also contains special tires, chrome-plated wheels, bullet-nose racing caps, driver and decals. Suggested retail price is \$6.95.

For the 1/32 scale fans, Strombecker has released replicas of four top contenders on racing circuits around the world: Porsche RS-61; Lotus MK XIX; XK-E Jaguar and the Ferrari GTO Berlinetta. Each of these kits will sell for \$5.95, and will feature an adjustable light-weight brass chassis, soft rear slicks, hard front tires and the epoxy-coated, 12 volt Scuttler power plant.

A new variable voltage power pack has been added to the great Strombecker lineup. Designed to act virtually as a control center for slot cars, this unit is actually four power sources in a single cabinet, permitting instant fingertip selection of 14, 18, 20 or 24 volts. One switch engages low range for most road

Finely detailed 1/32 scale Porsche RS-61 features the popular 12 volt Scuttler motor.



Strombecker's 1/24 scale Formula 1 Ferrari.

racing, or high range for added power, when desired for hot competition races. Two additional switches select the particular voltage desired. Circuits that operate on a full 1½ amps, are protected against overload by circuit breakers and are easily reset. Overload indicator and pilot lamps, plus on-off switch are located on the panel. This unit carries a \$14.95 price tag.

In the component field, four new high-performance competition motors designed exclusively for slot racers have been introduced by Strombecker, they are:

"Destroyer" for 1/24-scale dragsters. This big, new 5-pole epoxied-armature, 12 volt, sidewinder motor has oilite bearings on both ends of the motor shaft. Suggested retail price is \$4.98.

"Devastator" for 1/24 scale and some 1/32 scale cars and dragsters, is a 12-volt sidewinder with 3-pole armature that will sell for \$3.98.

"Scorcher #7", an advanced in-line motor with 7-pole power, will wind up to 38,000 rpm. Finely balanced for smooth performance and long life, this \$4.98 unit features brass bearing arms and a fully-epoxied armature.

"Avenger", a \$3.98, 5-volt, in-line unit that hits 34,000 rpm, is for 1/32 scale cars and has such extras as epoxied armature, hard carbon brushes and brass bearing arms that permit easy mounting of the rear axle assembly.

Strombecker's famed Scuttler motors can now be "souped up" by replacing the regular armature with a new \$1.98 epoxied armature. Epoxy coating protects the motor parts from heat damage when more than 12 volts are applied. This

Scuttler motor and all-brass adjustable are standard equipment on the new 1/32 scale cars from Strombecker.





Four power sources in a single cabinet allow selection of 14, 18, 20 or 24 volts with this new variable voltage power pack.

results in higher scale speeds under stronger voltages, and increased operating life at the regular 12 volts. The Scuttler is designed for easy access to all component parts, permitting fast and easy insertion of the special armature.

Worn brushes on the Scuttler motor can now be easily replaced in a matter of seconds with Strombecker's new 49¢ assembly.

If you're looking for a replacement motor and chassis unit, Strombecker has that also. The 12 volt Scuttler motor and brass chassis combination is adjustable in length to fit both 1/24 and 1/32 scale model body shells. The brass front end chassis mounts on the front end of the Scuttler, forming a single, light-weight unit. This chassis dips at the center to lower center of gravity. Blade-type pickup is nylon for reduced friction drag on the front end. Pickup swivels 180 degrees and adjusts vertically and horizontally. Unit complete with motor, four oilite bearings, two styrene mounting blocks, extenders, universal L-type mounting brackets, braided pickup wires and screws sells for \$3.98. If the chassis is all you need, this assembly can be bought with everything but the motor for \$1.39.

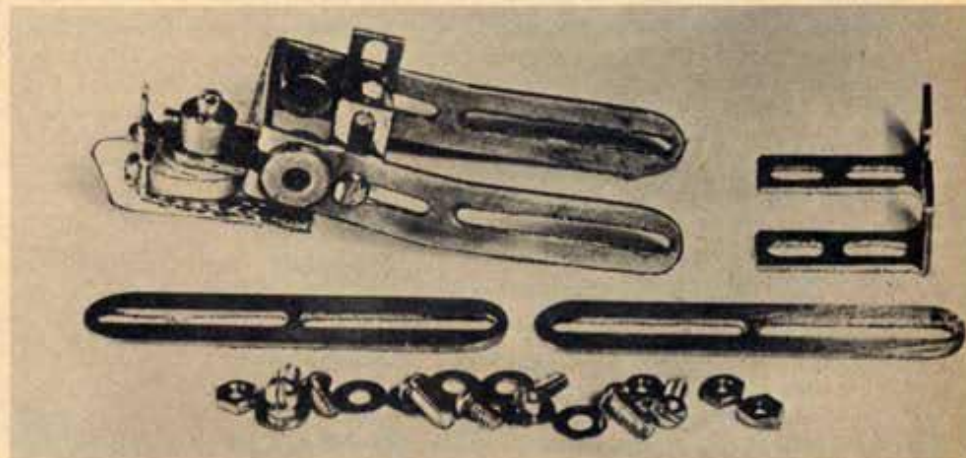
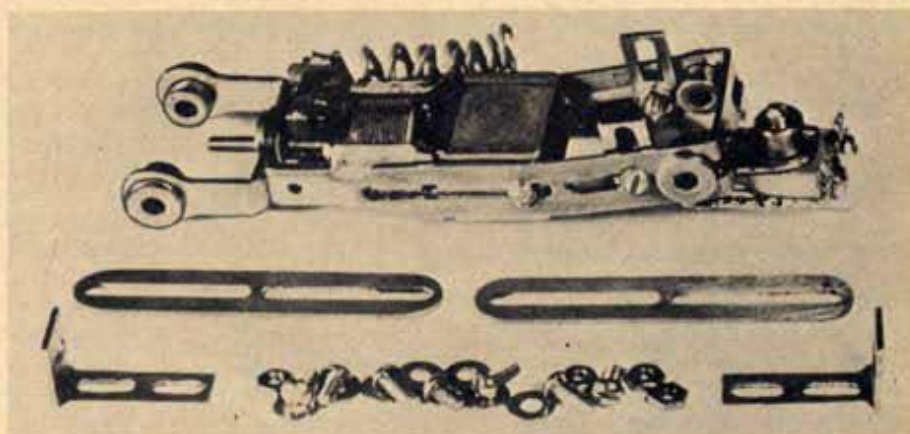
Split-second rheostat control and automatic braking action is promised with Strombecker's new "Competitor" controller. This \$6.95 "juicer" has a cool, high-polish cast aluminum body and wires cabled inside a vinyl covering. Alligator-clip connectors provide quick and easy hook-up, and the sensitive thumb control responds instantly to the operator's touch.

If you're in the market for new rubber, an extra soft, wide racing tire is now available from Strombecker for both 1/32 and 1/24 scale cars. These new "slicks" are designed to provide outstanding traction for faster accelera-

tion for competitive racing. Priced at 79¢ a pair, No. 8348 fits 1/24 scale cars, and No. 8356 is for 1/32 scale.

Last, but not least, bullet nose cap nuts, used on wheels of real racers, have been scaled down to model size by Strombecker. Threaded 5/40 to lock wheels onto standard racing axles, these triple chrome plated caps are designed to enhance the appearance of 1/32 and 1/24 scale chromed racing wheels. A set of four will retail for 49¢.

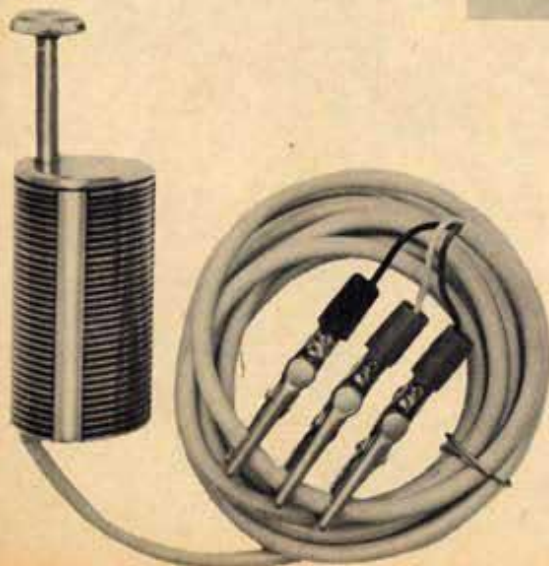
Strombecker's 12 volt Scuttler motor and brass chassis combination is now available as an accessory assembly for \$3.98.



Adjustable chassis assembly for all 1/24 and 1/32 scale wheelbases now retails for \$9.98.

Split-second rheostat control and automatic braking action in a \$6.95 controller is promised with the new "Competitor."

Extra soft, wide "slicks" are now available from Strombecker for both 1/32 and 1/24 scale slot cars for \$.79 per pair.





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in prizes for modelers in:

FISHER BODY CRAFTSMAN'S GUILD

THE 1964 EDITION of the annual Fisher Body Craftsman's Guild model car competition will end June 4, 1965, the deadline for submitting entries. Craftsman's Guild officials are expecting another successful competition year, and are bracing themselves to receive the flood of originally-styled hand-crafted models.

Again this year, Fisher Body Division of General Motors is offering \$117,000 in cash and university scholarship awards to winners in two age divisions. Boys 11-15 will compete against each other in the junior division, while boys 16-20 will vie for equal awards in the senior division.

Three two-man teams of professional judges will take on the task of selecting the winners from the field of entries. Each judging team will consist of a professional General Motors stylist who will appraise each model entry for its styling features, while the second member of the judging team, a secondary school industrial arts instructor, will judge the entry's dimensions according to Guild specifications requirements.

Entries from each state will be judged as a group to determine the state-level awards in each of the two age divisions. Then, the state winners will be pitted against each other for regional awards. The twenty junior and twenty senior division regional winners will be invited to attend the annual Craftsman's Guild convention and awards banquet in Detroit as guests of Fisher Body.

The winners of the \$28,000 in national university scholarship awards will be chosen from the regional winners who attend the Detroit festivities. Again, the selections for scholarship awards will be made in two age divisions. The top winner in each division will be granted a \$5,000 scholarship. The second place national awards will be \$4,000 scholarships; third place, \$3,000 scholarships; and fourth place winners will receive \$2,000 scholarships. Winners of these top awards will be announced at a gala awards banquet the night after the regional winners are brought to Detroit. As each scholarship winner's name is announced by Robert H. Gathman, vice-president of General Motors and general manager of Fisher Body Division, the announcement will also be made over a nationwide radio broadcast. This special awards banquet will be attended by hundreds of dignitaries from business, education, and the professions.

During the four-day convention, regional winners will be quartered at one of Detroit's finest hotels. All expenses, from the time the regional winner leaves his home until the time he returns, will be handled by Fisher Body Division.

Activities during the convention will include trips to various General Motors and civic installations and special sessions with

the G.M. Styling staff, during which regional winners will have an excellent opportunity to compare notes and "talk shop" with the professionals who design and build General Motors automobiles. Furthermore, visiting Guildsmen will be treated to elegant meals throughout the convention and will enjoy field day activities at one of the Detroit area recreational facilities.

The following list will tell you what region your state is in for second-round judging purposes:

REGIONAL NUMBER

- 1 Maine, New Hampshire, Vermont
- 2 New York
- 3 Massachusetts, Rhode Island
- 4 Connecticut, New Jersey
- 5 Pennsylvania
- 6 Maryland, Delaware, West Virginia, Virginia, District of Columbia
- 7 North Carolina, South Carolina, Kentucky, Tennessee
- 8 Florida, Mississippi, Alabama, Georgia
- 9 Ohio
- 10 Michigan
- 11 Indiana
- 12 Illinois



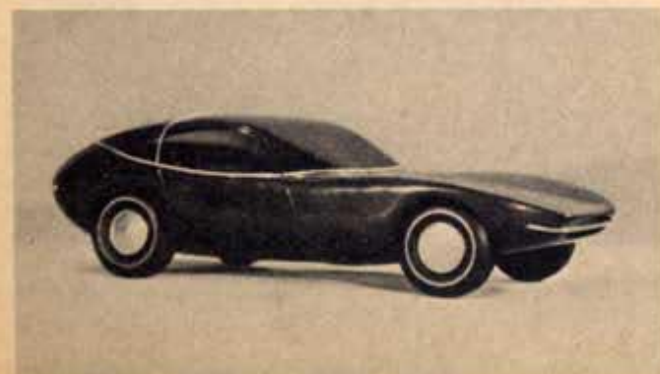
Indiana boys designed and built these smartly styled miniature automobiles for the 1964 Fisher Body Craftsman's Guild competition. Each entry won the first state award of \$150 cash, then went on to be declared the regional winner, which entitles the boys to an expense paid trip to the Guild convention in Detroit. Lower car won \$2,000 in finals.

- 13 Minnesota, Wisconsin
- 14 Iowa, Missouri
- 15 Nebraska, Kansas, Oklahoma, Arkansas
- 16 Texas, Louisiana
- 17 Montana, Wyoming, North Dakota, South Dakota, Alaska
- 18 Utah, Colorado, Arizona, New Mexico
- 19 Washington, Oregon, Idaho, Nevada, Hawaii
- 20 California

Two Rhode Island boys built these models for the 1964 Fisher Body Craftsman's Guild competition and won first place awards of \$150 each for the best entries from their state. A total of \$117,000 will be awarded to the winners of the 1965 Guild competition.



Kansas boys designed these miniature cars for the 1964 Fisher competition. Each entry won the first state award of \$150 cash, then went on to be declared the regional winner in the four-state region of Kansas, Nebraska, Oklahoma and Arkansas, which entitled the boys to an expense paid trip to the Guild convention in Detroit.

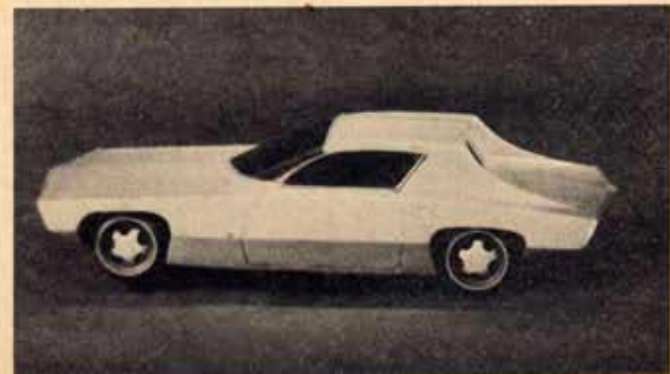


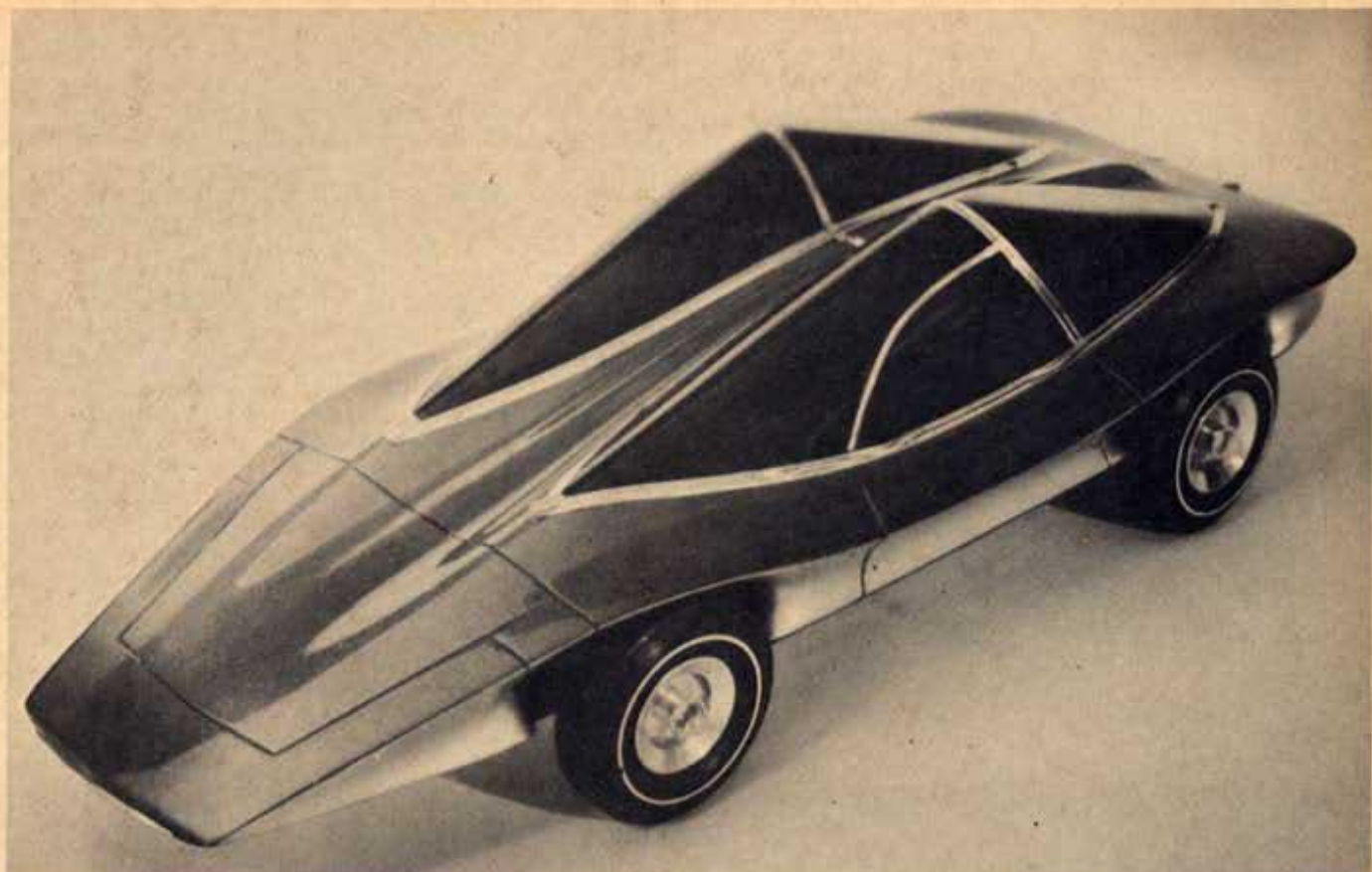
The professional stylists who act as judges during the competition will appraise each model car entered according to the following general standards: originality of design, artistic merit of design, and practicality of design. The craftsmanship judges will grade the entry's scale fidelity, painting and finishing, and the builder's workmanship. Each model will be judged and allotted a certain number of points in each of these categories. Then, for instance, the senior age division model scoring the highest number of total points in Oregon will be the first state winner of \$150. If that model car is also the highest scoring among senior division entries from the states of Oregon, Washington, Idaho, Nevada, and Hawaii (Region #19) the builder will also be the regional winner and will be flown to Detroit for the convention and will automatically be in competition for the \$28,000 in national scholarship awards. The same will apply to entries in the junior age division.

In addition to these scholarship awards, another ten \$1,000 scholarships will be granted to model cars which show excellence of design, regardless of the builder's age division, geographical residence, or his degree of success in the preliminary state judging. That is, a contestant may win one of the \$1,000 awards even if he did not place in the state-level judging.

Because of the demanding nature of the Fisher Body competition, it is probably too late for even an experienced model builder to start on an entry for this year's judging, as all models must be postmarked no later than midnight Friday, June 4, 1965. However, the lively competition, generous awards, and avid participation will prompt many veterans of past Guild programs to begin their model entries for next year's competition during the coming summer so as to get a head start on the project before the onrush of school activities in the

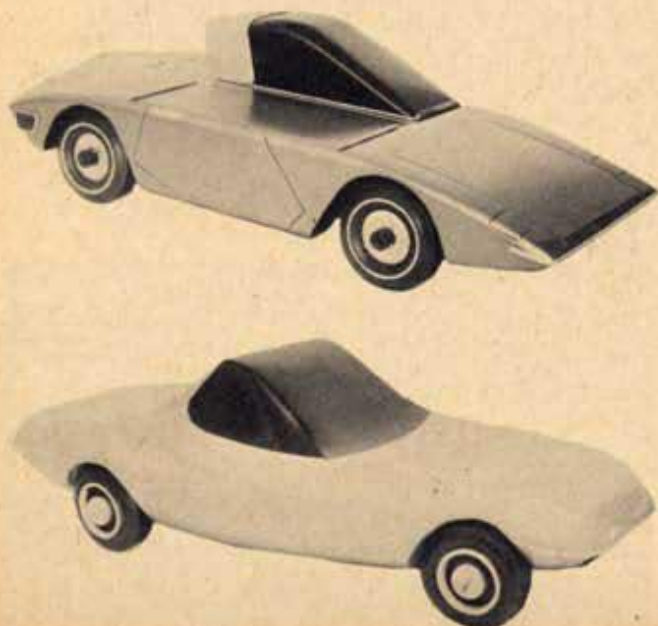
Each of these two Pennsylvania entries won the first state award of \$150 cash, then went on to be declared the regional winner, which entitled the boys to an expense paid trip to the Guild convention in Detroit. Upper picture shows the Senior Division winning entry built by Louis W. Reichart Jr. of Philadelphia. The lower car, entered by David Onopa of Reading won honors in the Junior Division.





This scale model automobile, designed and built by Walter Stewart who resides at 618 Maryland Avenue, Fairmont, Va., was judged first state winner in the Senior Division of the 1964 Fisher Body Craftsman's Guild annual competition. He received \$150 for designing and building the best entry from his state.

fall. To enroll yourself in the 1965-66 Craftsman's Guild competition (September-June) you should complete the blank on page — and return it to the Craftsman's Guild offices in Warren, Michigan. In return, you will receive the manual "Designing and Building a Model Car," the specifications sheet listing dimension requirements, and the first of four issues of the Guild newspaper, the GUILDMAN, in September.



If however, you are already engaged in building a model for the Guild, you are probably nearing the sanding, filling, and painting stage. This is perhaps the most critical single step in the model car building operation. A good job here will greatly enhance a mediocre design and, conversely, a poor paint job might ruin what otherwise could have been an outstanding entry. A gleaming, "deep" finish reflects the builder's craftsmanship and accents his detail work. All national award-winning model car entries have, as a common attribute, a beautiful metal-like finish.

Obtaining a good finish can be a simple chore and no serious problems should arise providing the modeler uses one type of paint and carefully follows the manufacturer's directions. Of course, patience and the allowance of plenty of time are vital considerations in planning the paint job. Guild contestants would be well advised to allow at least two weeks for preparing the model's surface and the actual painting. If any of the painting steps are rushed and coats of sealer, primer or paint are applied before the previous coat has dried, cracking or checking will often result. When this happens, all coats of paint must be removed from the entire model and it must be re-sanded. As this will result in a serious loss of valuable time, the greatest care taken in this step is not too much.

Experienced modelers are well aware of the importance of careful, thorough sanding of the model's surfaces. Only when the model is perfectly smooth and free from dents and other imperfections should the next step in painting be attempted. Remember: PAINTING NEVER HIDES FLAWS, DENTS AND OTHER IMPERFECTIONS... IT MAGNIFIES THEM. An award-winning finish can only be achieved by filling in all low spots and dents with plastic wood and sanding the rough grain until the whole model is smooth. For best results, fine grade garnet sandpaper is recommended. This can be pur-

Two Missouri boys designed and built these winning entries in the 1964 Fisher Body Craftsman's Guild model car competition.

chased at most hardware and hobby stores. The sandpaper should be fastened over sanding blocks to insure even pressure while smoothing the wood. Whenever possible, the sanding strokes should be parallel with the grain of wood.

When...and only when the surface of the model is as smooth as you can make it, wipe it clean of dust with a lint-free cloth. Apply a coat of sealer to the surface and allow it to dry thoroughly before applying a second coat. Sand the second coat very lightly with fine sandpaper or steel wool.

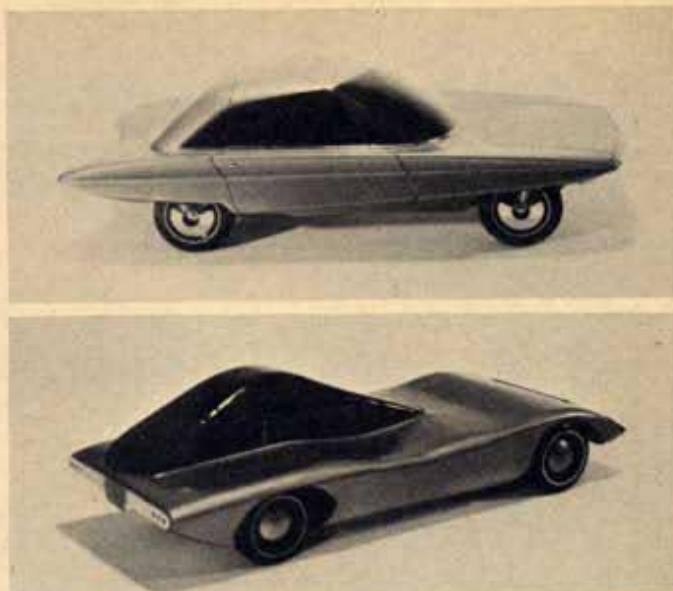
Apply several coats of primer or undercoat over the lightly-sanded sealer. Allow each undercoat to dry thoroughly before sanding lightly.

Finally, when the surface seems ready for the color coats, apply the paint by strictly following the manufacturer's directions. The thickness of the paint, its color, and the skill of the modeler will determine the number of color coats needed to obtain the right finish.

After each color coat is completely dry, it should be lightly sanded with fine #360 or #400 grit sandpaper. The final coat should not be sanded. Instead, rub the final coat down (again...after it is thoroughly dry) with a rubbing compound. As a final step, apply a car wax finish to your gleaming paint job.

Participants in the Craftsman's Guild program must supply their own materials and tools in building an originally-styled transportation vehicle. The model entry should not be a copy of a past production model automobile nor should it be a dragster, pick-up truck or any other vehicle whose primary purpose is something other than the transportation of people.

Each contestant can choose from three categories for his entry. The regular, sports car, and open categories are each explained in detail in the manual. "Designing and Building a Model Car." The manual also lists other competition rules



These smartly styled Mississippi miniatures were entered in the 1964 Fisher Body Craftsman's Guild competition and won first place awards of \$150 each for the best entries from their state.

and specifications and contains tips on materials and tools, modeling techniques, painting and finishing, designing, interiors, etc.

Readers should look for a pictorial layout of winners in this year's competition in the October issue of *Model Car Science*. For further, detailed information, write: Fisher Body Craftsman's Guild, Dept. MCS, Warren, Michigan.

Enter the 1965 Fisher Body Craftsman's Guild car designing and building competition. It's challenging! It's rewarding! And Boy Scouts can earn a merit badge!

1,078 AWARDS TOTALING \$117,000

2 — \$5,000 scholarships 2 — \$4,000 scholarships 2 — \$3,000 scholarships 2 — \$2,000 scholarships
10 — \$1,000 scholarships

Plus 1,060 regional and state awards valued at \$79,000.

Just mail the coupon below and you may be on your way to a college education. Designing and building your own model car is exciting as well as rewarding. There's a new "open" classification that really lets your imagination soar! Get the details in this year's free booklet with complete car-building instructions. You'll also get regular editions of the Craftsman's Guild newspaper that's jam-packed with tips on how to build a winner. It's also free — when you enter.

And remember: You compete only against boys in your own age group. Don't wait! Fill out the coupon and mail it today.



BOY SCOUTS: Your model car, constructed in accordance with Craftsman's Guild rules, earns you the new Model Building Merit Badge.

This competition approved by the Committee on National Contests and Activities of the National Association of Secondary School Principals.

THIS COUPON MAY BE WORTH A COLLEGE EDUCATION—SEND IT TODAY!

Fisher Body Craftsman's Guild, Dept. MCS Warren, Michigan

Please enroll me in your 1965 Model Car Competition. Send me the free instruction booklet, "Designing and Building a Model Car."

NAME _____
(PRINT) FIRST NAME MIDDLE INITIAL LAST NAME

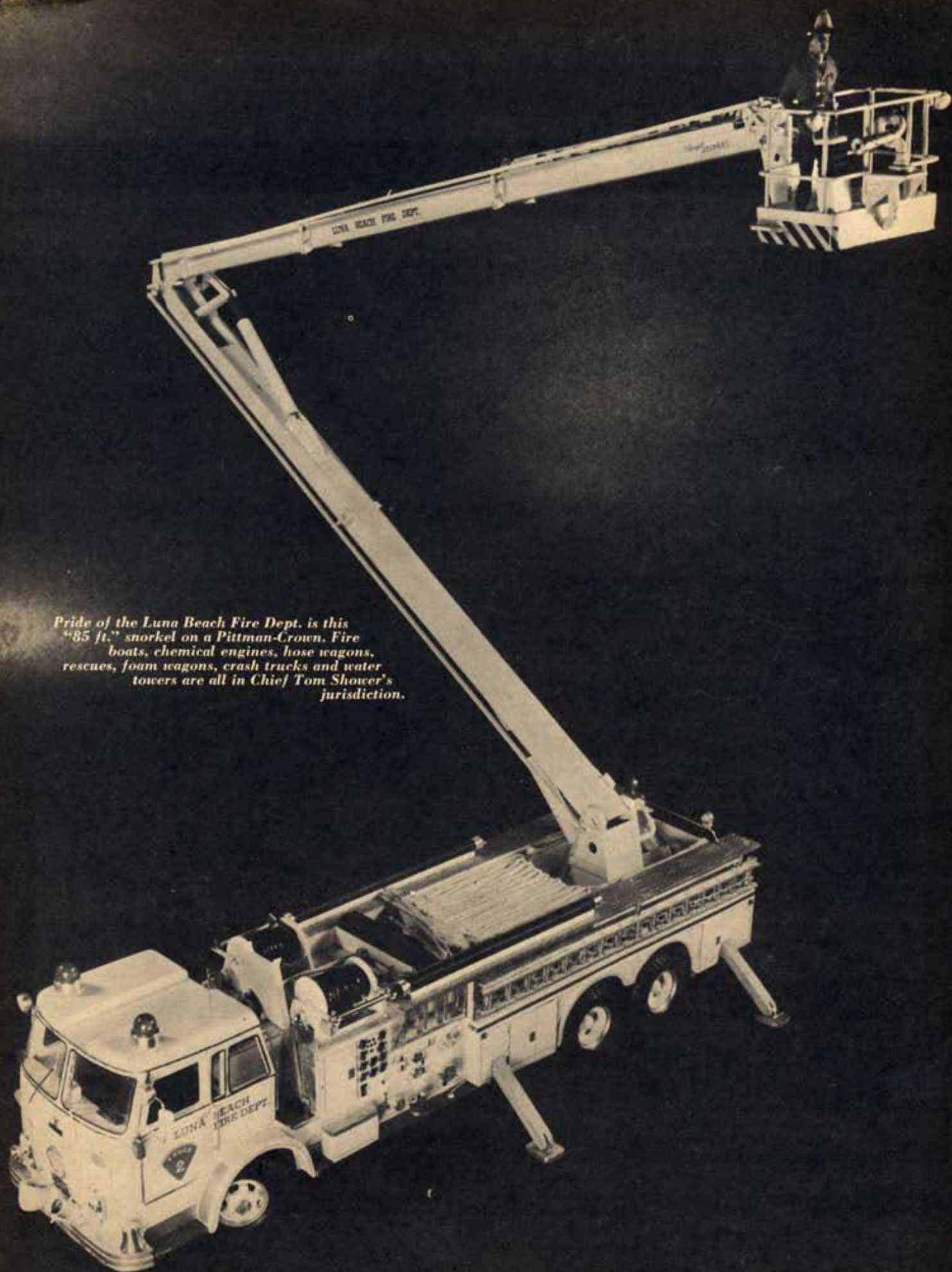
ADDRESS _____
(PRINT)

CITY _____ STATE _____
(PRINT)

IMPORTANT: Only boys born in the following years are eligible. Check the year you were born below.

SENIOR DIVISION	JUNIOR DIVISION
1944 <input type="checkbox"/>	1949 <input type="checkbox"/>
1945 <input type="checkbox"/>	1950 <input type="checkbox"/>
1946 <input type="checkbox"/>	1951 <input type="checkbox"/>
1947 <input type="checkbox"/>	1952 <input type="checkbox"/>
1948 <input type="checkbox"/>	1953 <input type="checkbox"/>

model car Science MAGAZINE



Pride of the Luna Beach Fire Dept. is this "85 ft." snorkel on a Pittman-Crown. Fire boats, chemical engines, hose wagons, rescues, foam wagons, crash trucks and water towers are all in Chief Tom Shower's jurisdiction.

Anyone for a SMALL Fire?

By PHIL GLICKMAN

WHEN TOM SHOWERS signs out the log book at Engine Company 31 in Paramount, California and heads for his Bellflower home, he loses one identity and assumes another.

One minute he's Captain Tom Showers, veteran fire officer of 20 years service with the Los Angeles County Fire Dept. . . . the next, he's Chief Tom Showers of the Luna Beach Fire Department.

This dual life has been going on for more than ten years and his superior, Chief Engineer Keith Klinger, doesn't mind a bit. In fact, he sanctions this "moonlighting" on Shower's part.

First, let's take a look at Luna Beach: Population: 100,000 plus, Area: approximately 20 square miles.

Four fire stations serve the community with 15 pieces of apparatus, four fire

prevention and service cars, and one fire boat.

There are more than 600 "running cards" in the signal office.

"Running cards" denote fire alarm box locations and reflect the hazards of the area which determine the number and types of fire apparatus that respond to an alarm.

Showers is also responsible for the

Luna Beach hydrant system, signal and electrical departments and its personnel.

Luna Beach is a typical city: industrial areas, storage tanks containing hazardous and volatile liquids and gasses, commercial and business districts, residential and a harbor area.

The biggest problem to the readers of this article is, Luna Beach can not be found on any map. It's mythical. But



"Captain" and "engineer" discuss "oil leakage" on Engine #1 at the Luna Beach Station #1.

This 1958 Ford pump chassis is a model of a rig Chief Showers found in the Hague, Holland.





London Fire Brigade Dennis Pump-Escape is an exact reproduction of the actual rig.



Escape ladder mounts the rear of this pumper and can easily be moved into position and extended.

Tom Showers isn't. And the equipment that goes to service the fire protection needs of Luna Beach are real too, only scaled 3/8 inch to 1 foot.

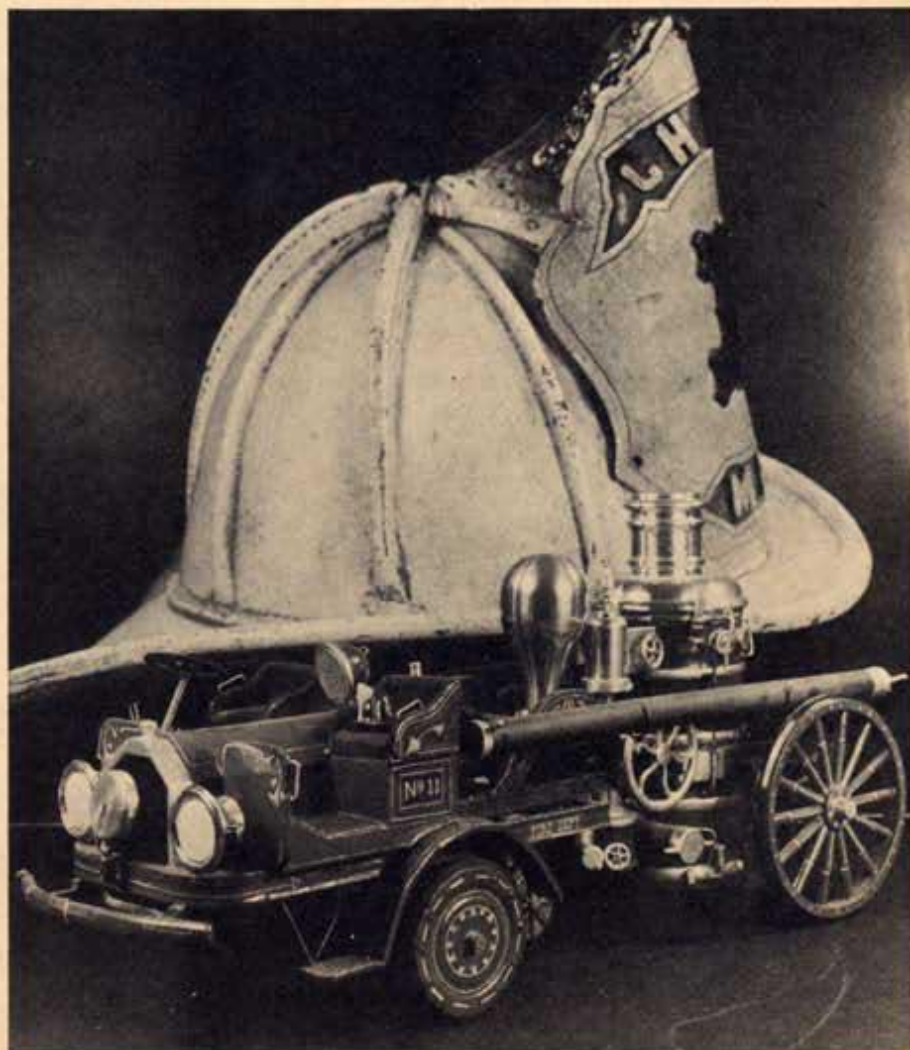
Showers admits that he's like a letter carrier who, on his days off likes to take walks. "I've always been interested in firefighting," he said, "and model making just seemed to fit in with my job."

Showers first began his firefighting career in the Army while stationed in Hawaii in 1940. He was a military fire chief when Pearl Harbor was attacked on December 7, 1941.

But he prefers to talk more about his models. He began building model fire equipment in 1941, and to date has completed more than 200. Types and vintage are from the hand drawn pumps of 1740 to the most modern pumpers and "snorkels" of 1965. Fire boats, chemical engines, hose wagons, rescues, foam wagons, crash tracks and water towers are all represented in Tom's study and workshop.

Almost every major manufacturer of American fire equipment is represented: Seagrave, Ahrens-Fox, Crown, American-La France, Mack, Pirsch, International,

Continued on next page



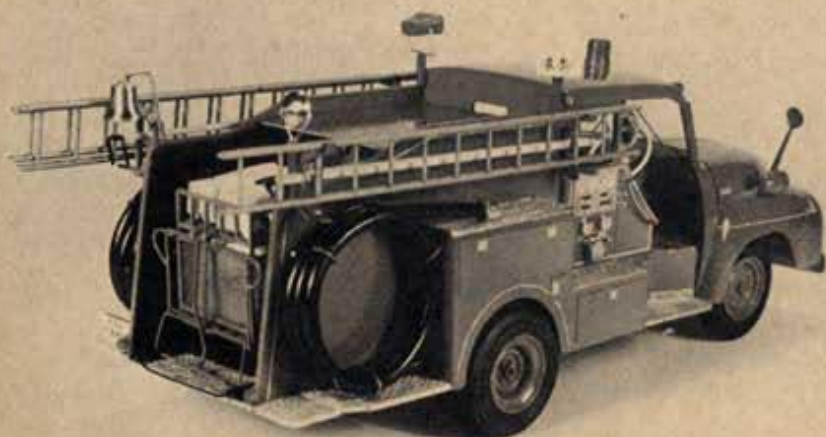
The antique fire helmet accents this 1900 Amoskeag Steamer on a 1910 Seagrave tractor.



A true classic in American fire fighting equipment was this 1922 Ahrens-Fox Pumper.

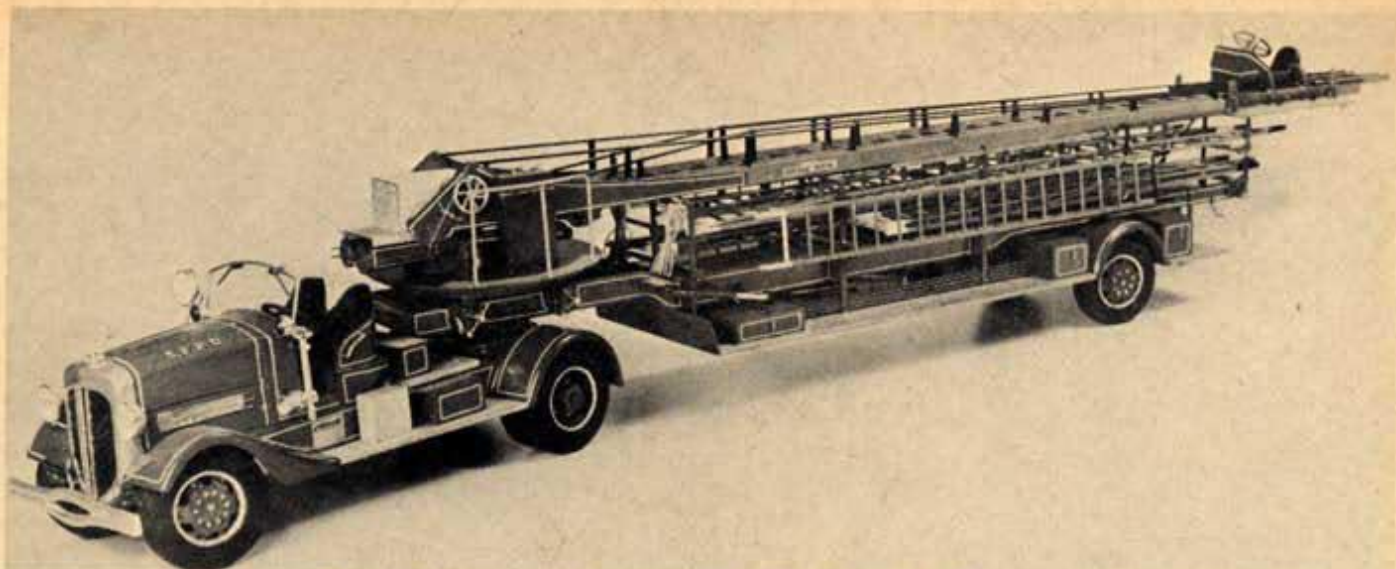


A far cry from the rickshaw is the Showers' version of the Japanese 1964 Morita tender.



Finishing touches are added to a replica of a Los Angeles F.D. pumper by Showers.

Every detail on this Morita pump-hose tender has been authentically reproduced by Showers.



One of San Francisco's finest was this 1939 Aherns-Fox 85 ft. Aerial.

Ford Chevrolet etc. And foreign too.

After a recent trip to Europe, Tom began to construct engines and aerial trucks of Magirus, Mercedes, Austin, Dennis, and Metz manufacture. Even a Japanese rig . . . a diminutive Morita pumper and hose-tender combination.

Tom begins every model by measuring the actual engine. If he can't get to the piece of equipment, he has the use of manufacturer's blueprints.

His 35 mm camera captures close-ups of door handles, city emblems, headlights, pump control panels and the manifold details that are so distinctive to each engine.

Basic materials for his models include sheet basswood, aluminum and brass tubing, plastic in tube and sheet form are utilized extensively and bar stock of aluminum for turning out bells and sirens on his jeweler's lathe.

Wheels are always a problem and Tom usually purchases commercial kits to obtain them. But alterations are commonplace. You can't have a wheel with six lugs when the actual model has nine, can you?

Color is important . . . very important with Showers. Besides the traditional red, many cities have color schemes that would shock Pablo Picasso. Chartreuse is the "wild" color of one aerial ladder in his collection, and canary yellow is there too. Deep burgundy reddish-purple is the coating for an up-state New York pumper. White is fast becoming a popular

color among fire services in the United States. In fact, Luna Beach's department has all white rigs.

When Showers completes a model, there's usually 100 to 150 hours labor involved . . . not counting research.

Of the 200 models that he has built, only 75 remain in his study, tucked neatly behind sliding glass doors in cases that rim the room. Others have been given to friends, donated to museums, and occasionally sold to connoisseurs of the master model makers art. In one corner of the study a four-tiered cabinet holds the Luna Beach Fire Department — the headquarters building and three outlying stations are displayed. The interiors are lit and the three-inch blankets tucked in

the beds of the dormitory gives one an eerie feeling that Gulliver must have experienced when gazing into Lilliputian cottages.

In a custom transparent lucite case on one of the cabinets is a perfect model of L.A. County Engine #31, a 1958 Crown Pumper and an exact miniature duplicate of the engine Showers commands.

"It's for my nephew in Copenhagen," he said, "We're," he paused, looked at his wife Lisa and took her hand, "going back next year, and I want him to see what our engines are like."

I asked, "Are you recruiting for the L.A. County Fire Department?"

He winked. "Once a fireman, always a fireman."

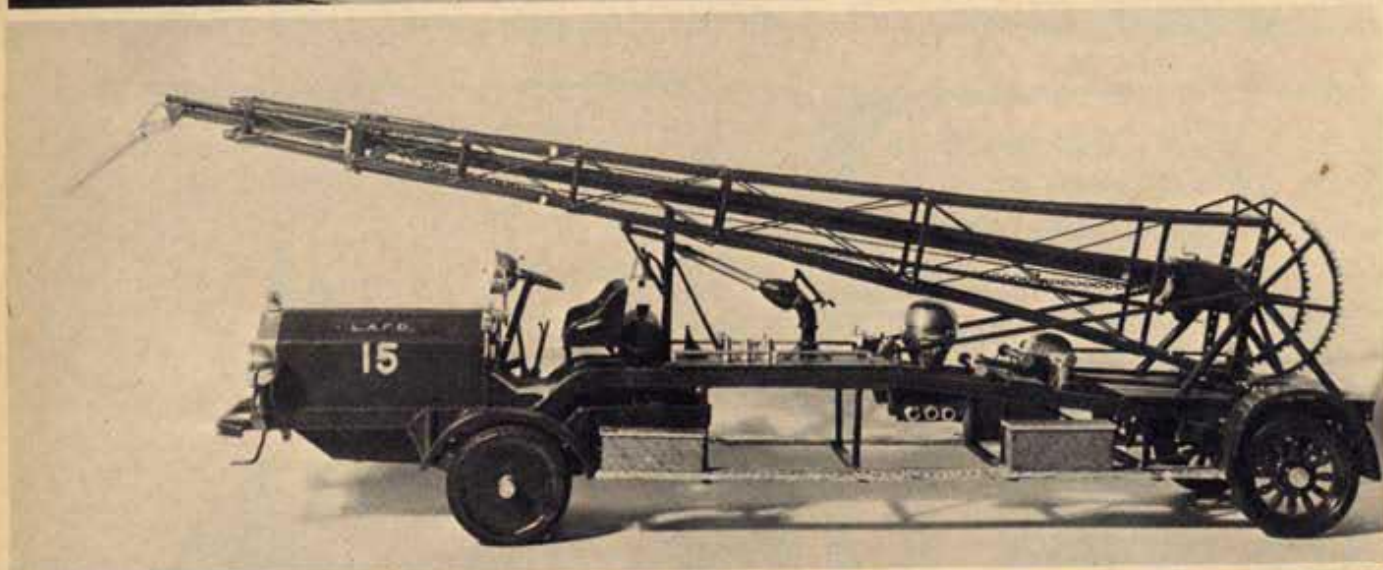


Standing in front of the cases that house most of his collection, Showers displays one of his current projects, a fully equipped fire boat.



Showers checks a siren for adjustment on an aerial ladder truck at Luna Beach #4.

Hydraulic lift Gorter water tower built in 1905 by the L.A.F.D. was motorized in 1915. Actual rig is still in working condition.



The four Luna Beach fire stations are housed on this specially designed shelf.



This Model "A" is a combination Chief's car and chemical tank.

KIT CARSON

by Altizer & Newton

SHEER GENIUS!
...BUT WILL WE
MAKE IT!?

WELL
IS T
CON
GIVE



GOSH, KIT, IF I'M GONNA MAKE
IT, I GOTTA WORK AT HOME
TO KEEP FROM WASTING TIME.

ME TOO!

YEAH.



ARG!...

...WE DON'T HAVE
TIME TO DRAW UP
SEPARATE PLANS!...



...HMMM...

...SEPARATE
PLANS...

I'VE GOT
IT!!



4 DAYS
LATER...

ALRIGHT...
DUMP OUT YOUR
PARTS, AND LET'S
FINISH IT UP.



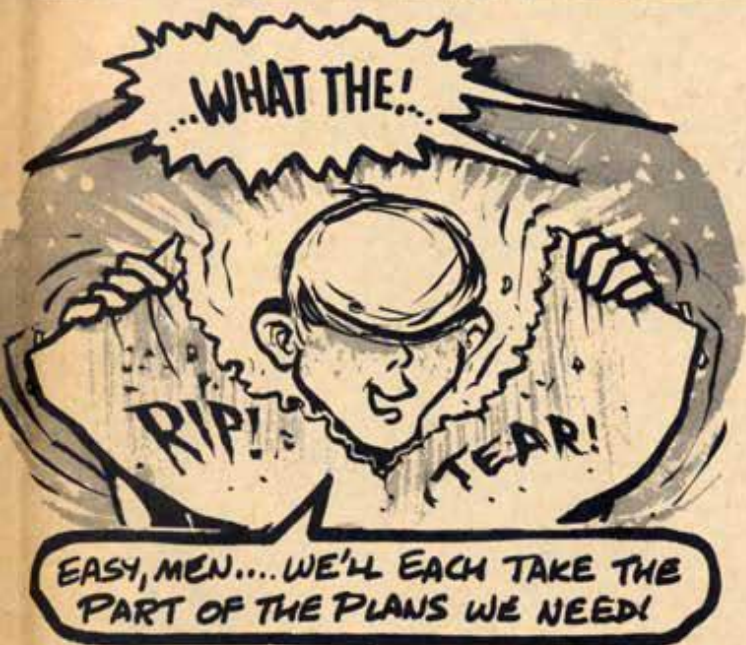
GREAT BALLS OF FIRE!!



AT THE

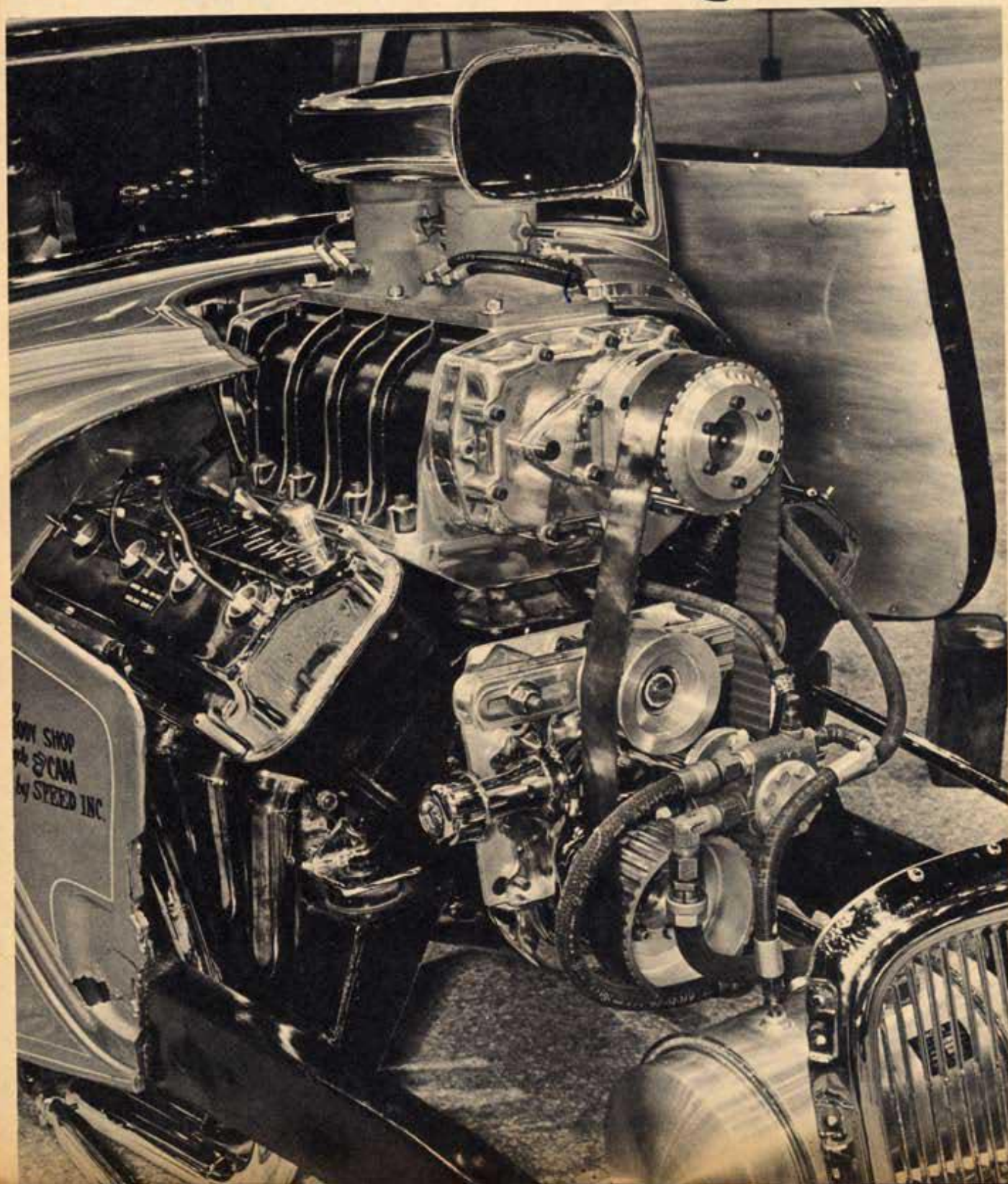
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IF YOU'RE AIMING FOR THE TOP PRIZE
IN A MODEL CONTEST, YOU'VE GOT TO

DETAIL Your Powerplant



BY ROBERT HOEPPNER

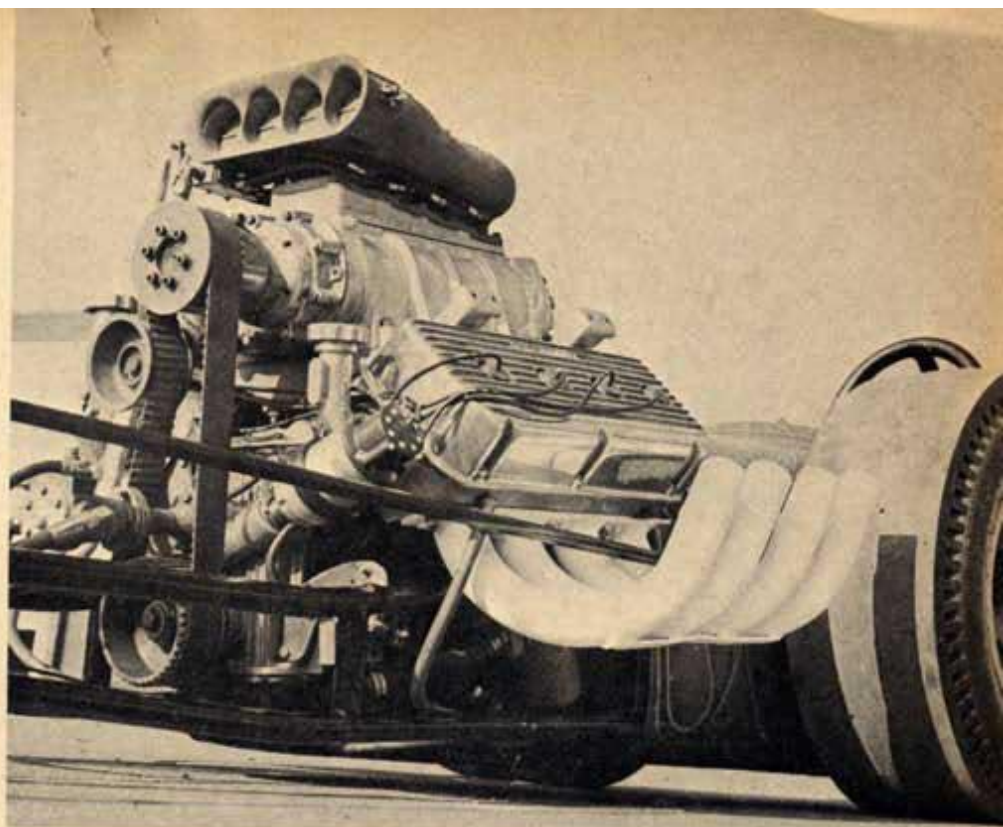
DETAIL WIRING a model has been the subject of many letters received by Model Car Science. By necessity, an answer to most of these questions must be somewhat vague as the questions themselves are usually lacking in specific details. If the car in question is anything other than absolutely stock, the actual routing or position taken by any particular wire or piece of tubing is at the discretion of the person making the installation. The basic reason for the installation of any piece of wire or tubing is to provide a means of travel for either fuel, oil or an electrical current from one point to another. The path by which this is accomplished can be by an infinite number of routes. It can be compared to a trip from New York to Los Angeles. There are various ways in which one can travel from the extreme South to a tour through Canada before dropping down the coast to your destination; and who is to say which is the proper one to pursue as long as you get to your destination? Within reason the same holds true in wiring a model.

The position and placement of every wire and line on any stock car has many reasons substantiating its location. Generally, as an aid to easy installation during the many phases of assembly, it is part of the initial design package. But move into the Hot Rod or Custom Car field and things will take a different turn. True, juice still has to flow to the lights and plugs and fuel must find its way from tank to carburetors or injectors, but the direction in which these lines and wires are installed are up to the person making the installation. The fellow down the street may accomplish the same installation in an entirely different manner.

The first man may only be interested in obtaining a properly functioning installation while the other fellow might be more interested in the appearance that such an installation will make, and he will take more time with his installation. The operation of both units may be identical but their appearance could vary greatly.

With this in mind, you can see that to answer a generalized question on how to wire a certain engine becomes somewhat of a problem. If a sincere answer is to be forthcoming, reference can only be made to such basic requirements as the physical layout of the car, its intended use, or perhaps the limitations imposed by various racing organizations can effect the placement and instal-

Majority of the fuel system lines are visible on this Chrysler engine set up. Note that supply lines are usually larger than pressure lines.



This Chrysler engine has the magneto mounted on the front case rather than the more popular top rear placement.

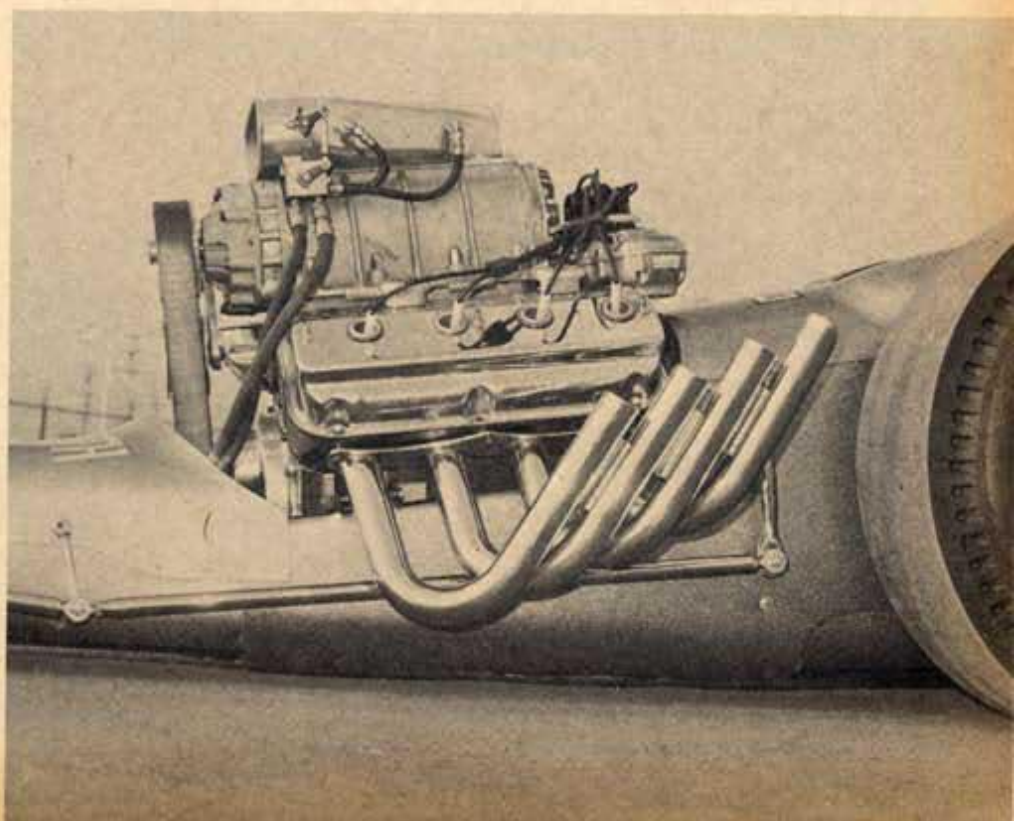
lation of various components.

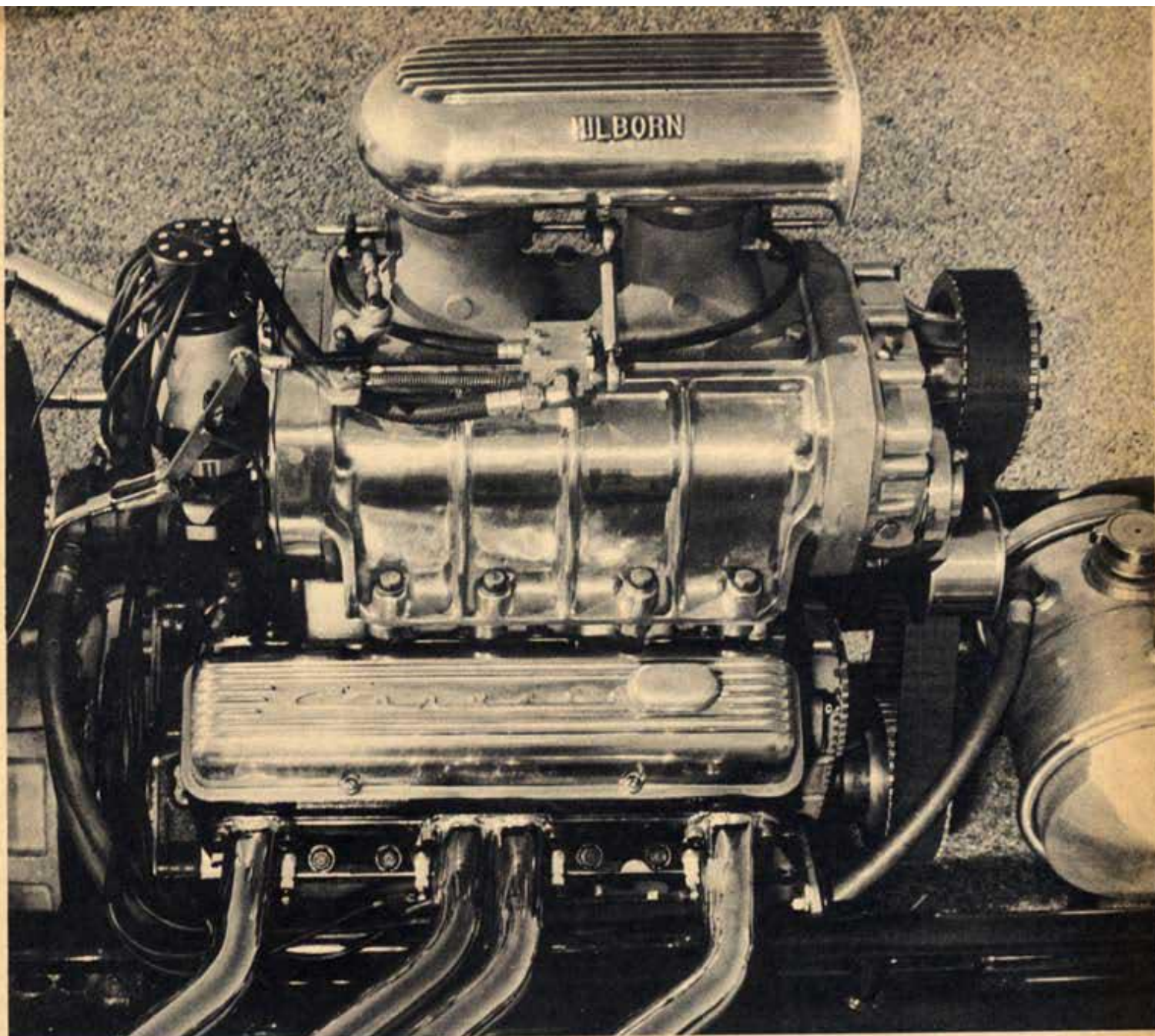
The complexity of the wiring diagrams of any car will increase with the amount of equipment installed. By far the most simple is the dragster. In the middle would be a common street type of hot rod. At the top end would be a fully loaded domestic out of Detroit with all of the power options, including a four way power seat, windows, antennas and air conditioning. A complete description

of such an installation with all the diagrams and methods of check out would more than fill all the pages of this magazine.

For our purpose the majority of such complex installations can be eliminated, as the bulk of it is installed in such a manner that it is completely hidden and out of view at all times, so why bother about it? The few wires that are exposed in the engine compartment are generally

Fuel lines from the pump run to the distribution block, from there smaller lines lead to the nozzles.



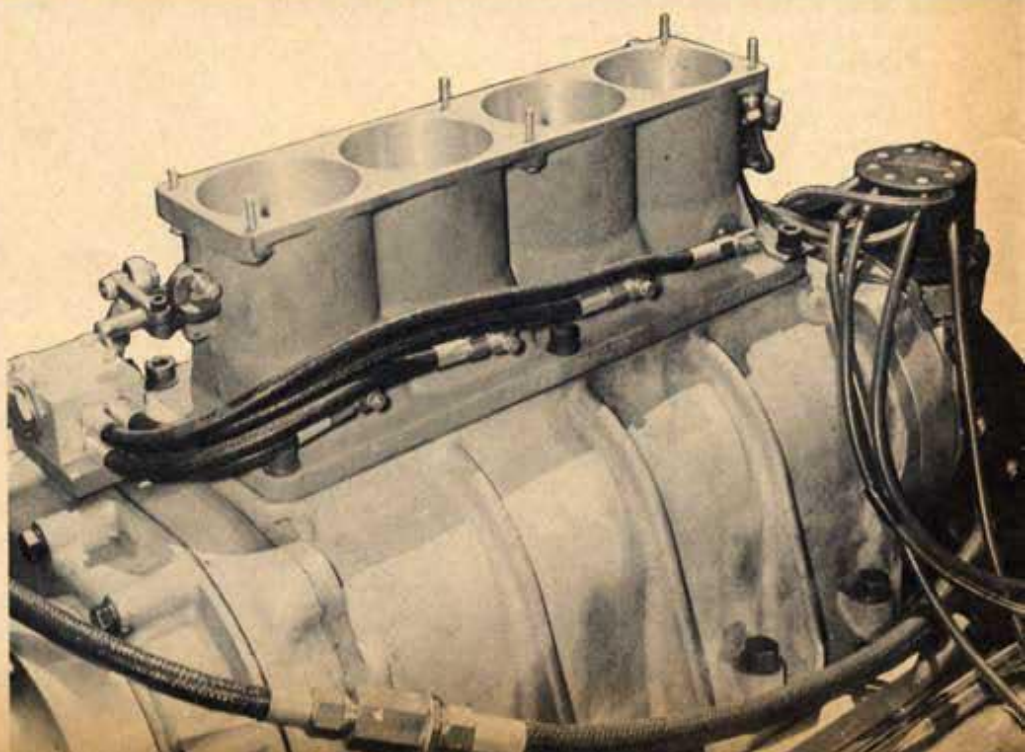


This installation uses a rear mounted fuel pump, mounted in conjunction with the Vertex magneto. The switch wire is visible to the left of magneto.

Equal length lines from distribution block to spray nozzles are not as important on supercharged engines as it is on the unblown installations.

all that will show on the average model so let us concern ourselves mainly with this area.

It is almost a sure bet that most persons working with kits as their main source of supply have never taken the time to figure the scale dimensions of any additional parts that they may wish to add to their model. This includes any wiring that may become part of such an installation as part of a super detailing operation. If some method or material cannot be found that is close to scale it is much better to omit the part rather than have it appear so very ob-



viously out of scale and detract from the rest of the model.

All of us have seen photos or models in which the builder must be given an "A" for effort but, the builder used a spark plug cable larger than a garden hose. If the material you use is only 40 thousandths of an inch in diameter it is equal to one inch in 1/25th scale. Here you see choosing something to work with, that will look acceptable when such small dimensions are involved becomes somewhat of a problem in itself.

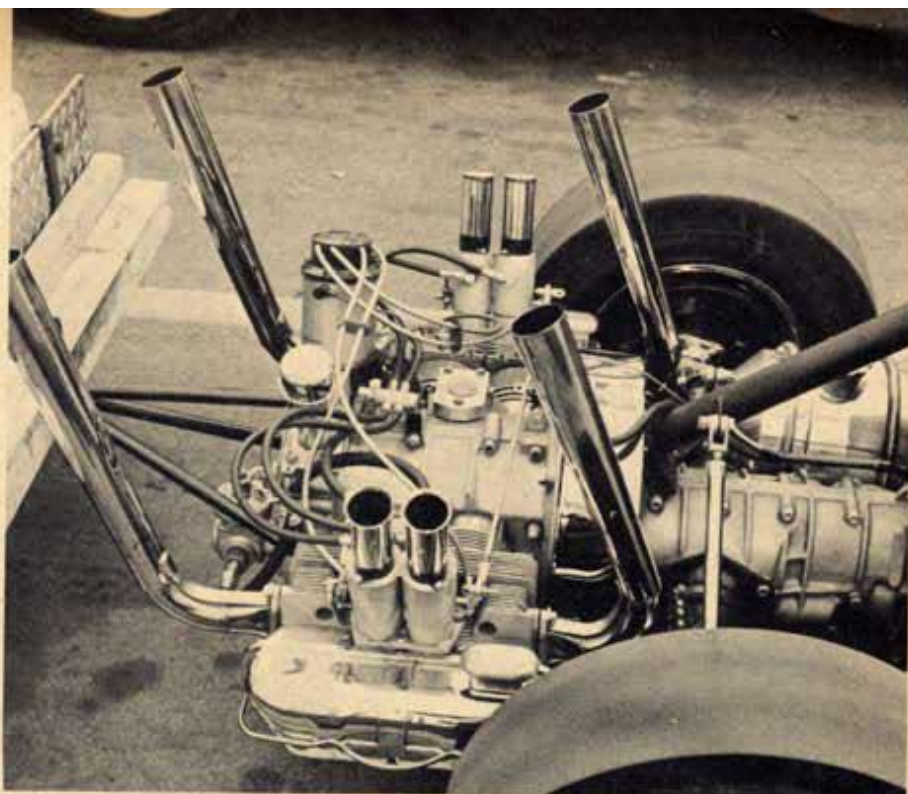
As an aid in judging the approximate size you will require for any wiring, the following table may be of help. It can be used for either 1/25th or 1/24th scale as there is only a fractional part of one thousandths of an inch difference in dimensions below one inch.

TABLE	
Actual Dimension	Scale Dimension
1"	.040
7/8"	.035
3/4"	.030
5/8"	.025
1/2"	.020
3/8"	.015
1/4"	.010
3/16"	.0075
1/8"	.005
1/16"	.0025

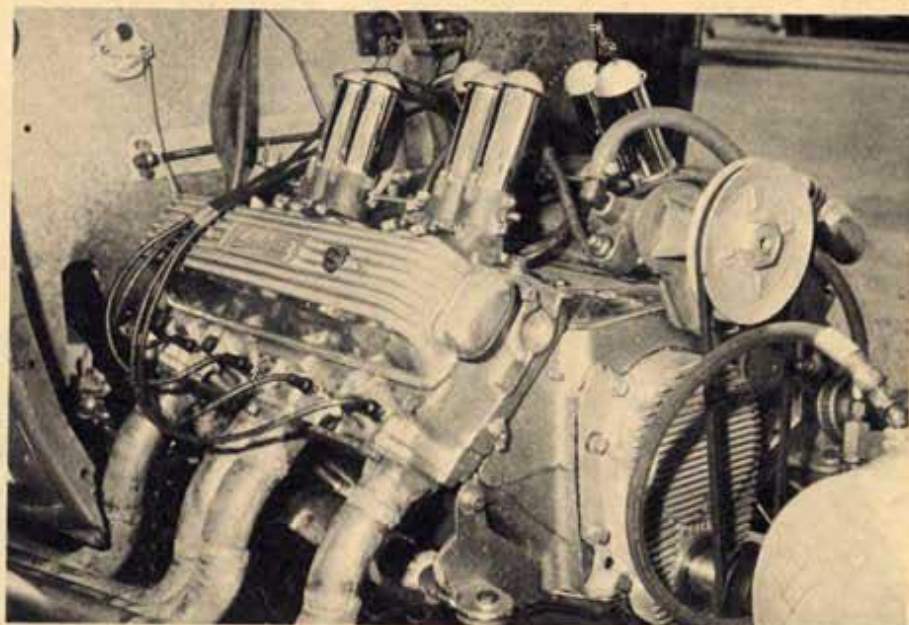
A good source of supply for small diameter copper wire that is available in a wide variety of small diameters would be your local radio or television repair store, or perhaps someone that services small electrical motors. It is called plain enameled magnet wire. The enamel coating will be anywhere between a natural copper color to a dark brown. It is soft enough to be easily formed into any shape which it will retain, making it easy to keep the lines in the position you wish them to take.

Wiring a dragster model is by far the simplest as they contain only the basic elements required to run the engine. No starter, battery or lights are used. The complete electrical system consists of just the ignition system and, in most cases, this is contained in one unit, the magneto. For accuracy in detailing your model, you should know the firing order of the particular engine you are using so the leads from the magneto may be properly positioned. The one item usually omitted from most installations of this type is the small wire leading from the side of the case to a switch or button in the cockpit. Look closely at any close up photo of such an engine and you will be able to spot it. The magneto is a completely self contained unit and generates its own current when rotating and re-

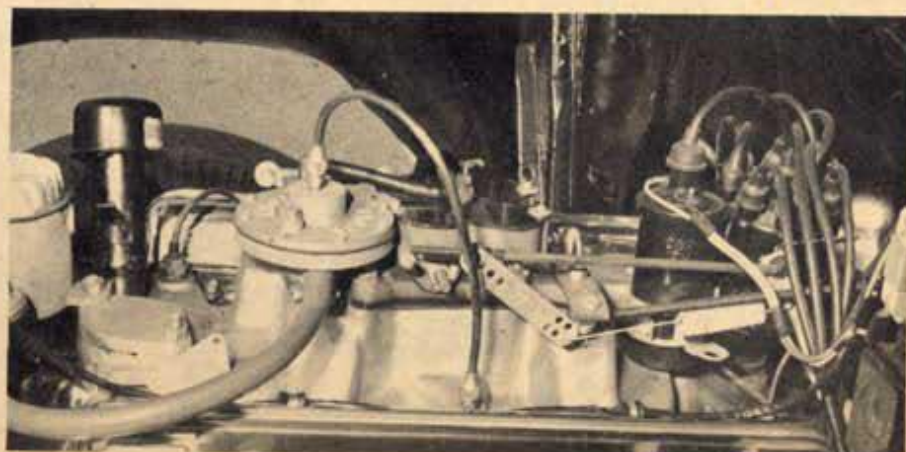
Primary leads to ignition coil show up well in this shot. Water temperature unit is next to oil filler tube on left.

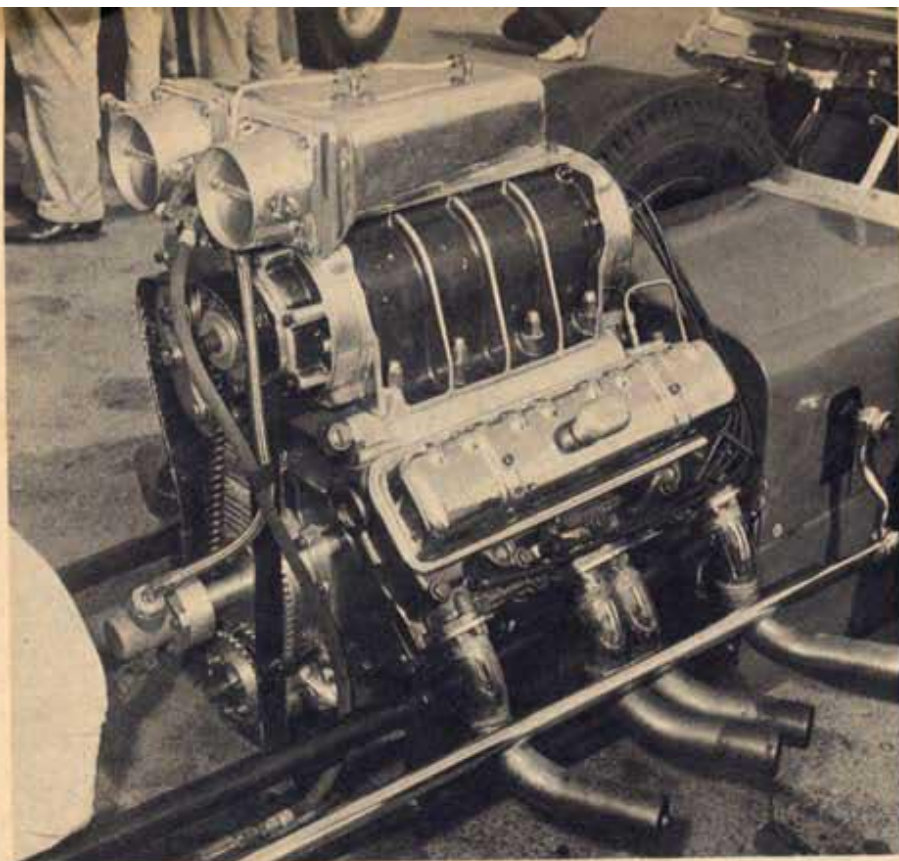


Switch wire for mag shows very clearly on this installation, as well as the equal length fuel lines from manifold block to spray nozzles.



Injection of unblown engines requires equal length in the lines from distribution valve to injector spray nozzles. This installation used a belt driven fuel pump.



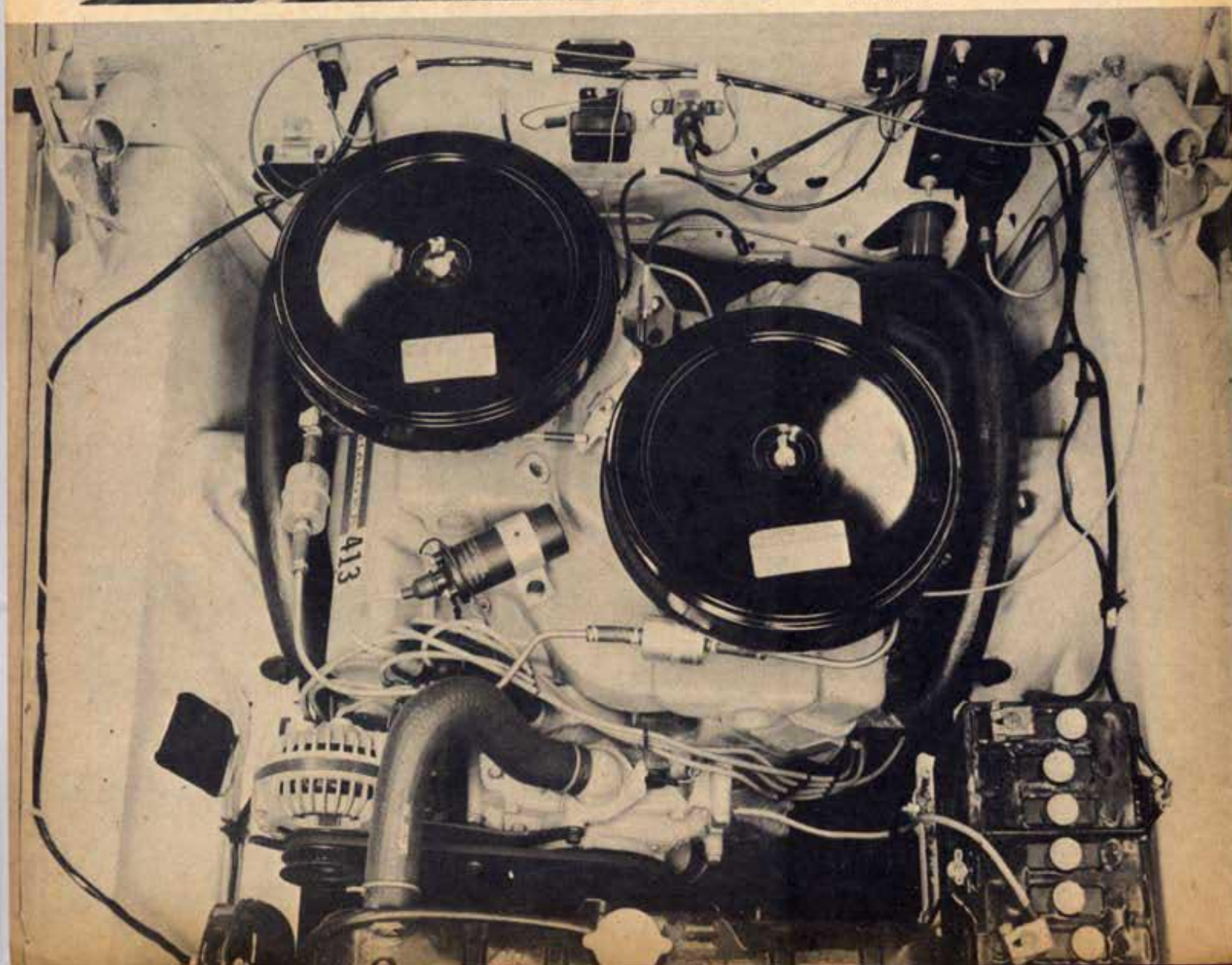


quires this grounding wire to be able to stop the engine.

Moving on into the normal hot rod, you will find that they usually use a normal ignition system. This requires a few more wires to complete. The normal high tension or secondary circuit leads from the distributor cap to the spark plugs are again installed, but one more such wire is required from the center of the cap to the coil terminal. On each side of the coil high tension socket are two primary connections. One lead from one of these contacts goes to a connection on the base of the ignition, the other lead usually disappears through a hole in the firewall on its way to the switch. The leads from the generator or alternator

By comparing this photo with the other blower installations you can see why it is so hard to tell how to wire an engine. Each installation will differ in methods used.

Stock cars have many wires installed on fender panels and forward side of firewall. This Ramcharger Dodge installation is an excellent example.



Seeing the real thing is the only way to properly understand where and what all of the wires on a firewall are for and how they are routed.

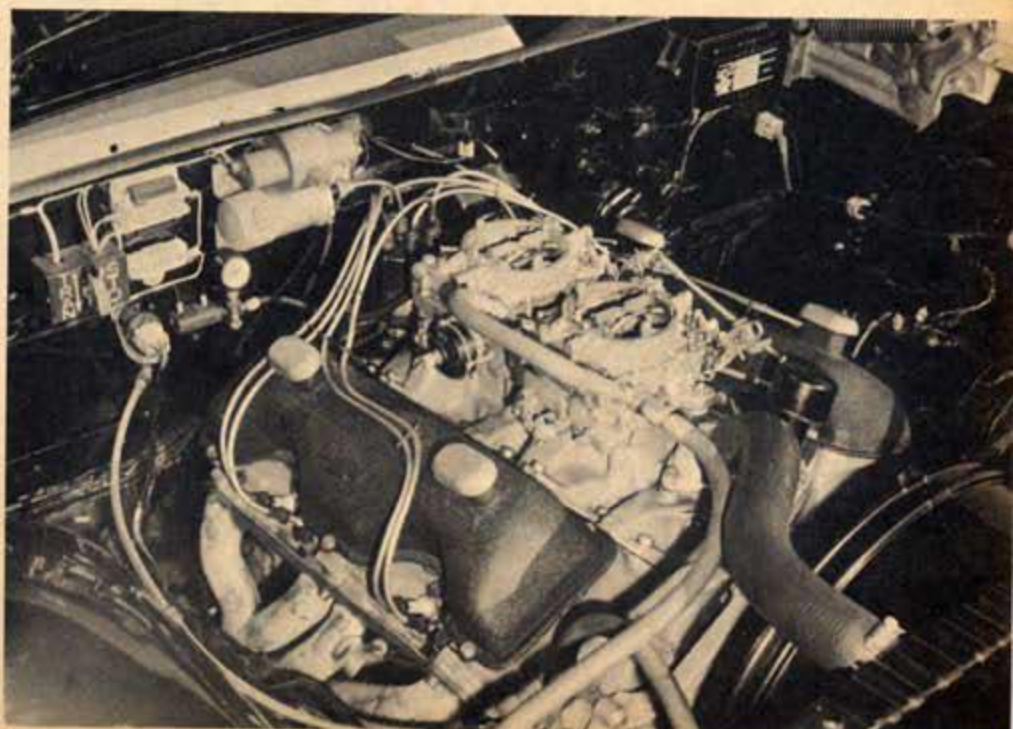
are usually grouped together and run to the voltage regulator and relay cans usually installed on the firewall. The horn and headlight wires are generally grouped together in a loom and run back toward the firewall and may pick up those from the generator on the way before disappearing as a group through the firewall.

Other items that may be visible in this area are the battery and its cables. Normally the negative post is grounded and the positive cable runs to the starter relay. This may be mounted remotely on the wheel well web, or be a part of the starter assembly, depending upon the manufacturer. In each case, small wires will run from the starter relay to the coil and to the ignition switch.

Another wire normally overlooked is the wire from the oil pressure unit. On late model Ford engines it is installed on top of the oil filter mounting bracket and on Chevrolet engines it is on the rear of the block on the left side of center. The majority of the modern rods use clutch and brake pedals, dash or firewall mounted, in this case the stoplight switch and wires would show usually mounted on the top forward edge of the master cylinder, and with this you about have it for an average installation.

The normal passenger car will contain all of the above mentioned installations plus numerous additional ones and in this area each car will be somewhat different, even between models of the same make, due to the various options now offered by each manufacturer. To describe with any accuracy such installations would be a never ending job. Even if such an undertaking could be done, much would be lost to the individual in trying to interpret what had been written. In this case, the only method that will prove adequate is to see that installation yourself. Make sketches that you can use to work from, omitting those details that you determine to be unimportant depending upon the amount of time and effort you as an individual want to spend in detailing your model. Most garages have shop manuals on the type of equipment they service, if you can talk them into letting you look through them, they could be a great help in understanding some of these complex installations.

Wire loom from headlights and generator are mounted on L.H. wheel well, lead to disconnect on firewall and voltage regulator. Custom ignition equipment is mounted on R.H. side of firewall.



GREAT CARS



A CLEAN CLASSIC

By Robert Hoeppner

IF ANY ONE CAR deserves the honor of being the outstanding classic among the hot rodders, the '32 Ford roadster or coupe is by far the outstanding candidate. Now, after 32 years, its popularity is as strong as ever.

This outstanding example follows the classic approach used in the early days when the deuce was subjected to reworking by the hot rodder. No sectioned body, or channeling, just the tried and true lowered chassis and chopped top, with as much heat as could be coaxed out of the old bent eight. But just about here the similarity ends. True the styling is old hat, but under the skin it's a present day hot rod with many more horses than the old '32 ever thought it could handle. Yes, this one is a goer today just as it thought it was 30 years ago, pushed by a big Chrysler set well back in the '32 frame lowered to the extreme.

The A.M.T. '32 Ford coupe kit #232 forms the basis for this classic, along with the Revell Chrysler engine kit

C-1102, Competition Wheels kit C-1141 and Competition Tires kit C-1143.

To obtain the extreme lowered position required of the frame on this model, the floor pan and rear axle housing must be cut off and rear kick ups added to frame rails. A more authentic rear axle assembly, and one that will allow proper positioning of the frame, consists of the outer housings from the Revell Tweedy Pie kit. A quick change housing from the Roadster Speed equipment kit C-1132 and tubular radius rods from the Orange Crate kit H-1289, which will also supply the entire front axle assembly.

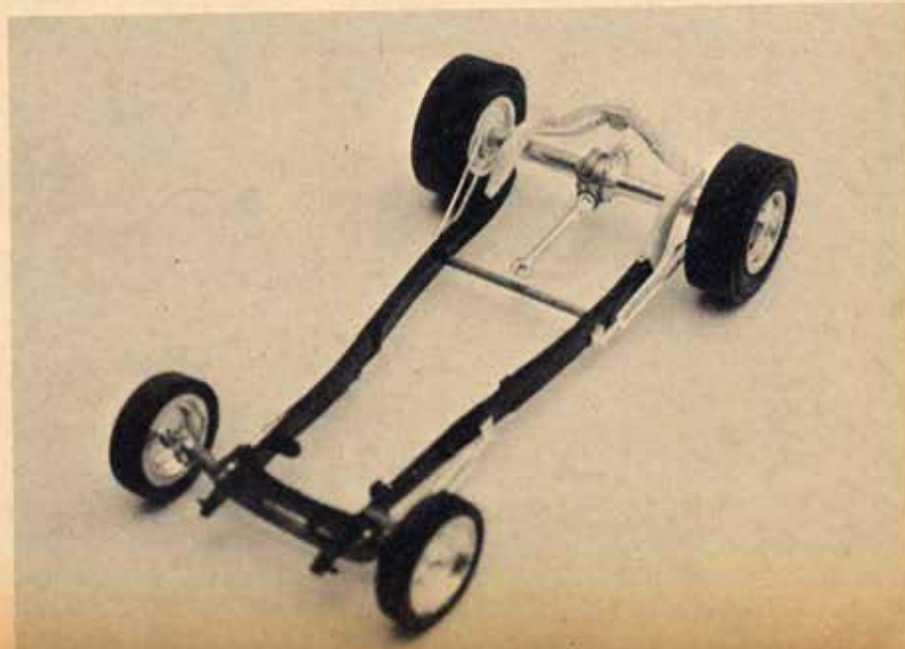
Build up front and rear axle assemblies including wheels and tires. Remove floor

pan and rear axle assembly from frame, add frame kick ups and a new cross member at a proper height to position frame in correct relation to the ground (check photos). Frame kick ups can be made from scrap plastic or from the rear section of the Revell T Roadster frame kit, #1128. When desired location is achieved make frame locating brackets for radius rods and your basic chassis is complete.

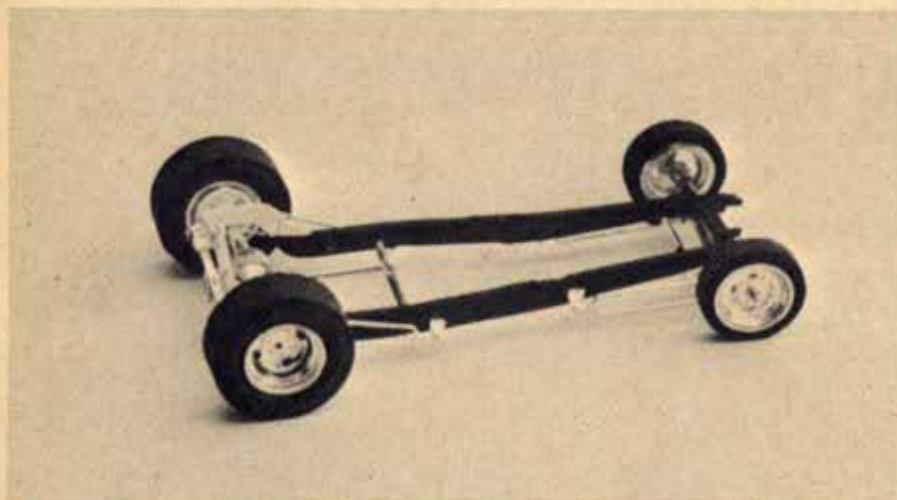
Body modifications are straight forward and include a chopped top, removal of some stock at fender well recesses to clear axle and the addition of louvers and a parachute pack to the deck lid.

As this is basically a competition machine, the normal interior has been removed and contains only the necessary

Basic frame rework eliminates much of the stock item. Remove only rear section of floor pan including rear axle at first. Fabricate frame kick ups and new cross member and install before removing forward section of floor. This will hold parts in proper alignment until new rear section has set.

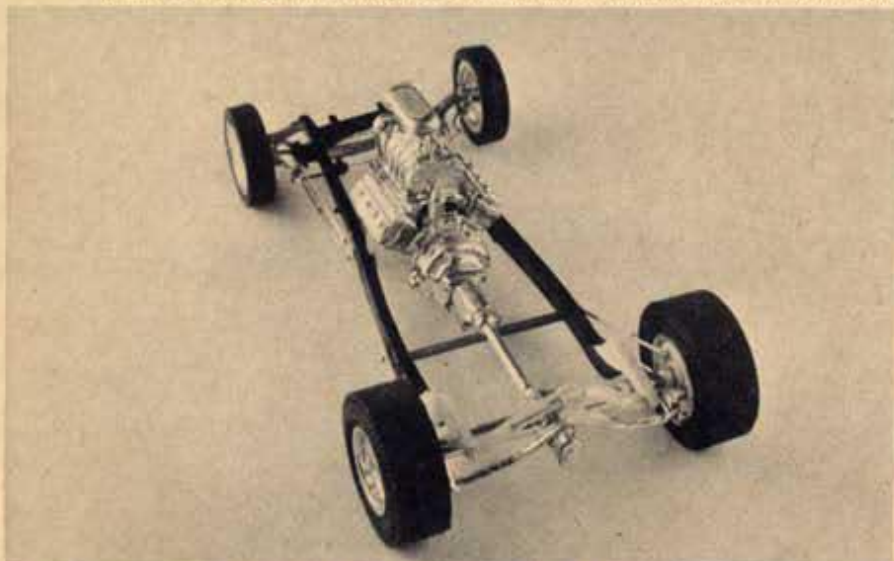


and how to build the model

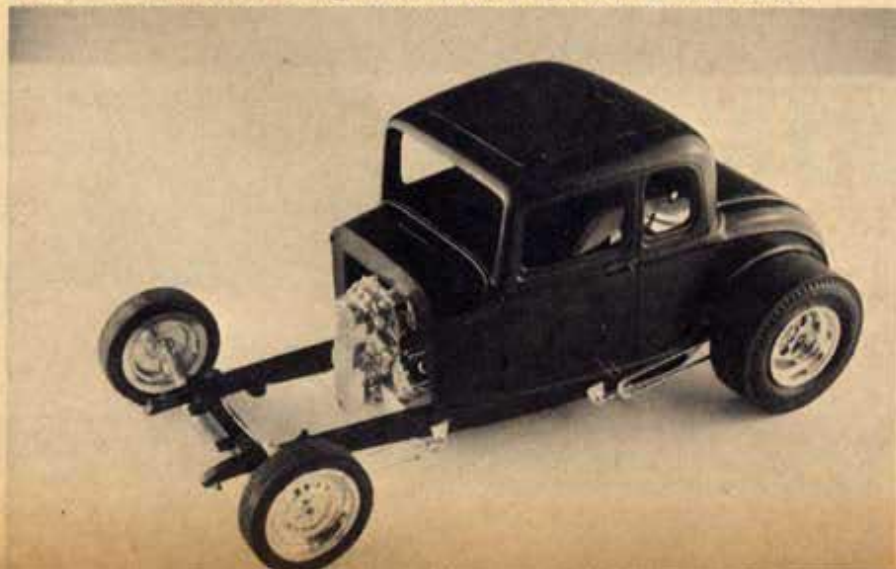


Frame is lowered to the absolute maximum requiring radius rods to be attached to frame rails. The high arch of the Orange Crate rear spring will clear the quick change section.

All basic chassis components are assembled. Now is the time to add the detailing if you wish. Tubular rear crossmember is arched accounting for some of the frame lowering and eliminating an excessive kick up in frame channels.



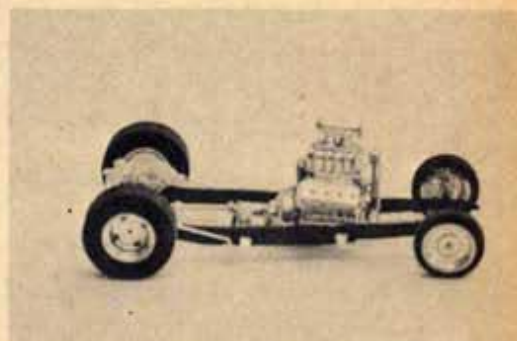
This is an extreme frame drop when you consider the body has not been channelled. Engine set back will require a new firewall being made of plastic or card stock. Exhaust stacks from the Orange Crate can be adopted to this installation.



equipment required for proper operation. The engine and drive line should be installed first to bring other items into proper relationship. We may as well borrow more parts from the Orange Crate and use the seat assembly steering column, Pittman arm, drag link and control pedals to complete the interior.

The grille has been blanked out with sheet metal, substituting again from the Orange Crate will eliminate filling this area on the A.M.T. shell.

By now you are ready for paint and if you follow the original it should be finished in a flame red, with all numbers and lettering in bright yellow edged in black.



Engine location is as far back as rules will permit. New tubular crossmembers for supporting it will have to be made from plastic runner stock in kit. Bottom of pan should be approximately 3/16" from ground for proper positioning.

Save time and make it easy on yourself, use the radiator shell from the Orange Crate. The kit unit is recessed to accept the chromed grille and will require lots of putty and plastic to fill the void.

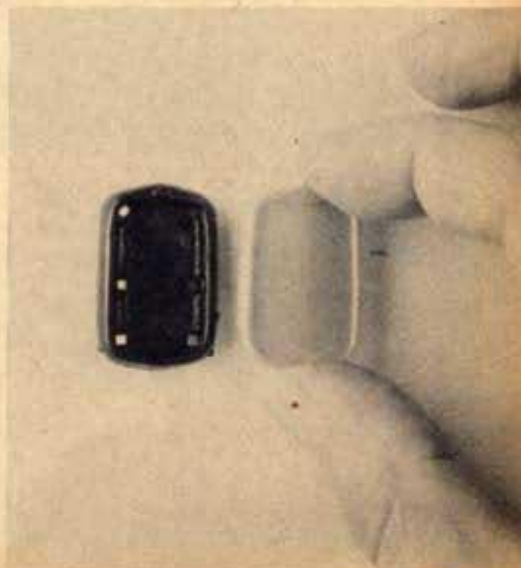


TABLE TOP RACING SECTION



PHOTO CONTEST

Each month Model Car Science will award valuable prizes to the readers who submit the best photos of slot racers in action. Send your photos to: Table Top Photo Contest Model Car Science, 171 Barrington Pl., Los Angeles 49, Calif.

**THIS MONTH'S
PHOTO CONTEST
WINNER IS**

GEORGE SMILY
4711 BALBOA
WICHITA FALLS, TEX.

By BOB GRISWOLD

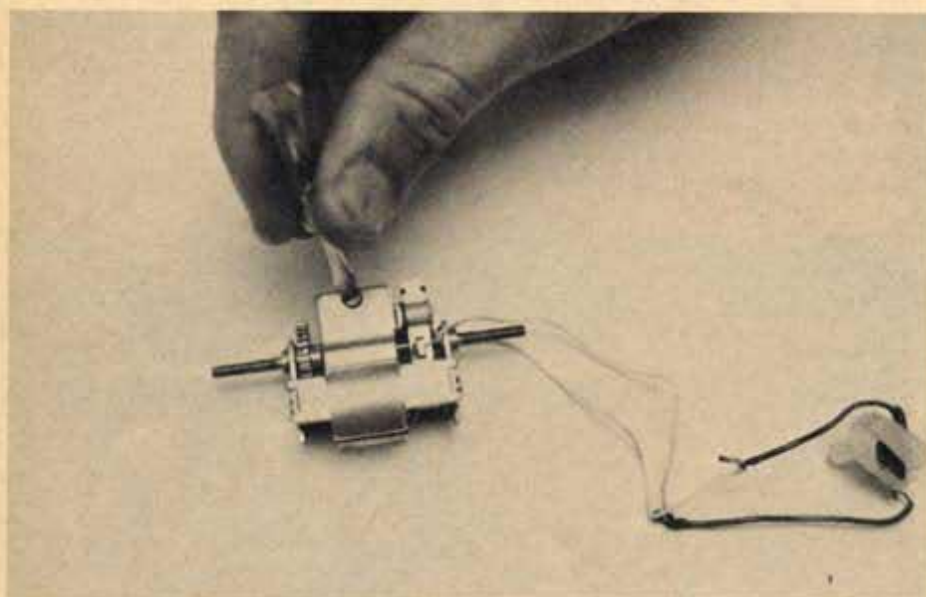
Convert your Pittman 704 to a 705

6 EASY STEPS TO IMPROVED HANDLING CHARACTERISTICS

One of the first motors to be extensively used in slot racing was the Pittman 704. One of the problems encountered with this motor, was the fact that the magnet hung out in back of the rear axle. This produced some pretty weird handling characteristics. Slot racers soon discovered that you could reverse the top and bottom plates on the motor and put all of the weight forward of the rear axle, which improved handling considerably. Pittman also recognized this fact and reintroduced the motor as the 705 model.

If you happen to have a 704A around and would like a better handling car, just follow the steps below.

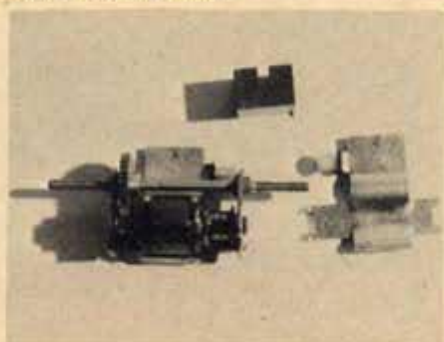
NOTE: While you have the motor apart put a light grease on the oilite bearings, this will help to improve the motor's performance. Also the motor must be remagnetized prior to running again.



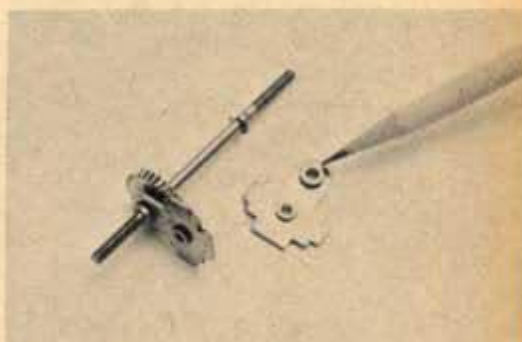
1. Undo the screw that holds the top and bottom plates together.



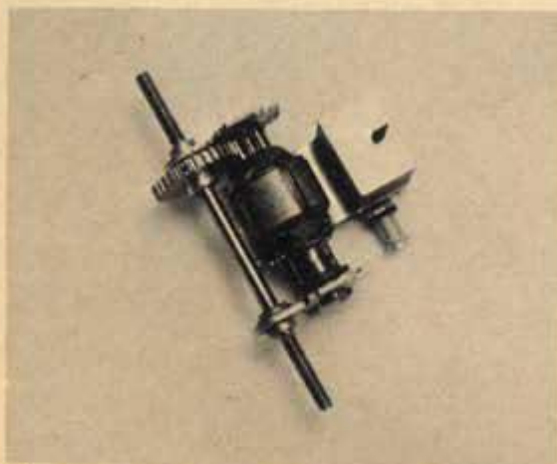
2. Gently pry off the top plate. Hold brush spring so it does not fly off.



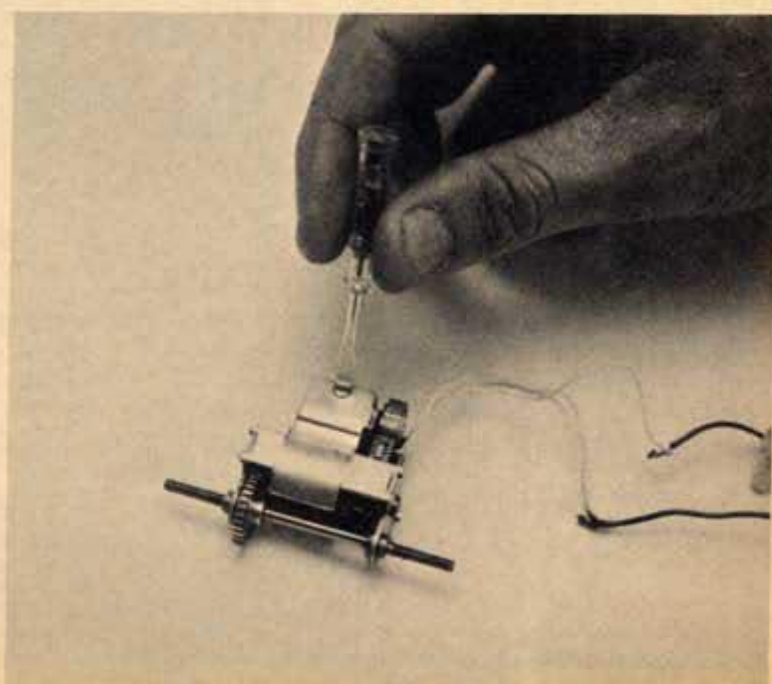
3. Remove bottom plate, then pull end plates away from armature.



4. Grease the bearings on the end plates, then reverse top and bottom plates.



5. Assemble end plates to armature and reversed bottom plate. Replace magnet, put brushes and snap top plate into position.



6. After assembly, replace and tighten down the screw. Be sure to remagnetize the motor for full power.

Designing an HO Super-Circuit

PART FOUR

by Raymond E. Hoy

THIS MONTH'S section of how to build this super circuit just about didn't make it into print, friends. There's an excellent reason for that, (I tell the Editor), and that is simply this: The old "hot thumb" is tired of having his thumb nearly frozen off, and by the time you read this I will have moved, lock, stock, and barrel, to sunny California. There I will remain, happily racing my little cars off into the sun that is setting so gently into yon Pacific ocean.

Zounds! What a poet! But back to work! I am still here in the frozen reaches of Northern Illinois, and the job at hand is getting the under-pinnings installed for our scenery that will grace our HO table.

I thought I would be able to polish the scenery section of this HO article off in just one issue, but the time problem that I have encountered in straightening up my affairs before moving to California, has eaten into my time greatly. With the magazine deadline perilously close, I will have to explain how to build the lake portion, and the pit area, next month.

This month's portion deals mainly with the installation of the rough framework that will support the wire mesh. The mesh, of course, serves as a support for the actual landscaping material.

It is necessary to build a high side wall all the way around our table. This wall will serve a two-fold purpose. First, it will act as a retaining wall, and keep our cars from falling off onto the floor, and second, it will provide a place to staple our wire mesh to.

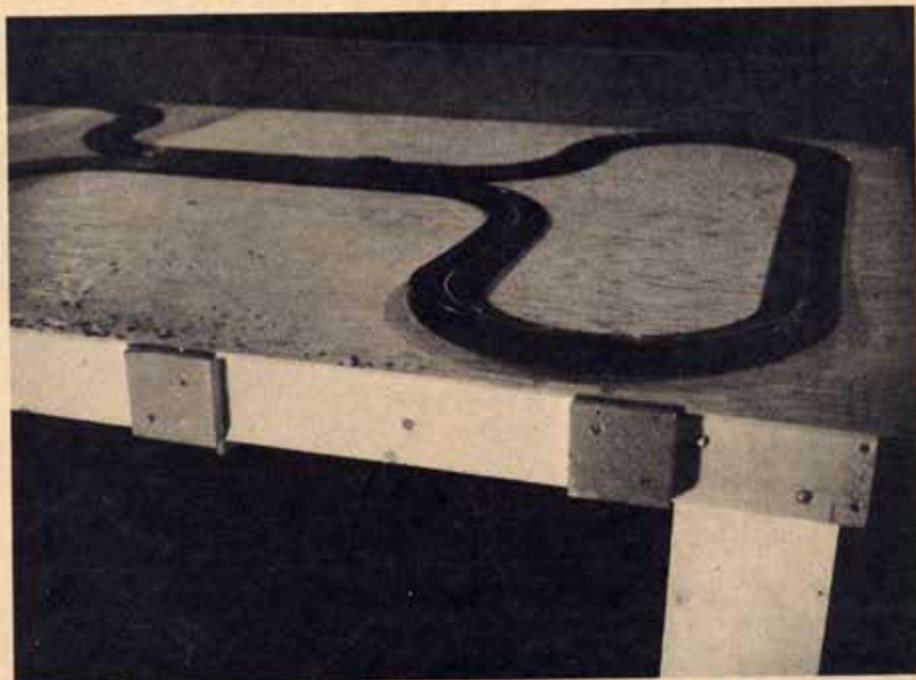
Photo number one shows cleats, made of 1 x 4's, screwed to the sidewalls of the table framework. If you look at your finished table, you will note that the plywood top of the table extends past the edges of the actual table framework, by several inches. We must use cleats, secured to the actual framework, to "build up" the frame so it extends out past the plywood top. To these cleats we must fasten 1" x 10" or 1" x 12" boards, as shown in photo number two. Use 1/4" No. 7 flathead wood screws

to screw the cleats to the side frames, and also to fasten the high side wall pieces to the cleats.

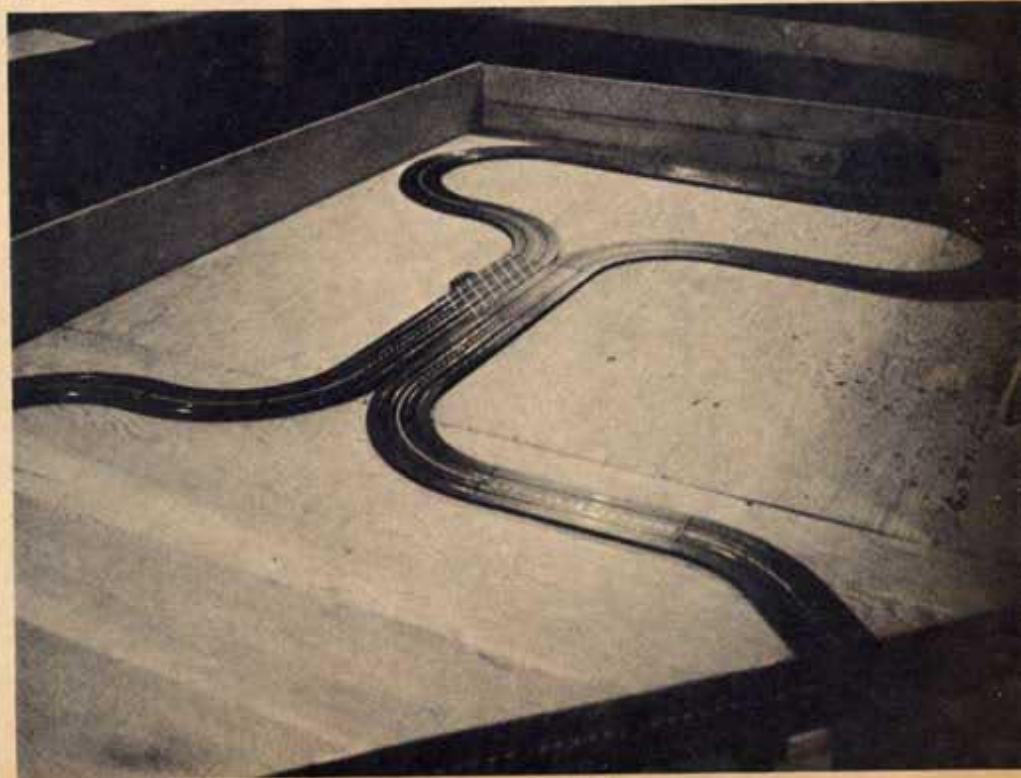
The finished table, with the high side walls surrounding it, gives the impression of standing at a Las Vegas crap table. Some of you younger fellows may not know the feeling, of course. As a

matter of fact, I myself, being completely clean-cut, and an all-American boy, have only been TOLD about what a real crap table actually looks like. I swear it on my little green dice.

Anyway, back to the business at hand. Once the sidewalls are in place you are really getting somewhere.

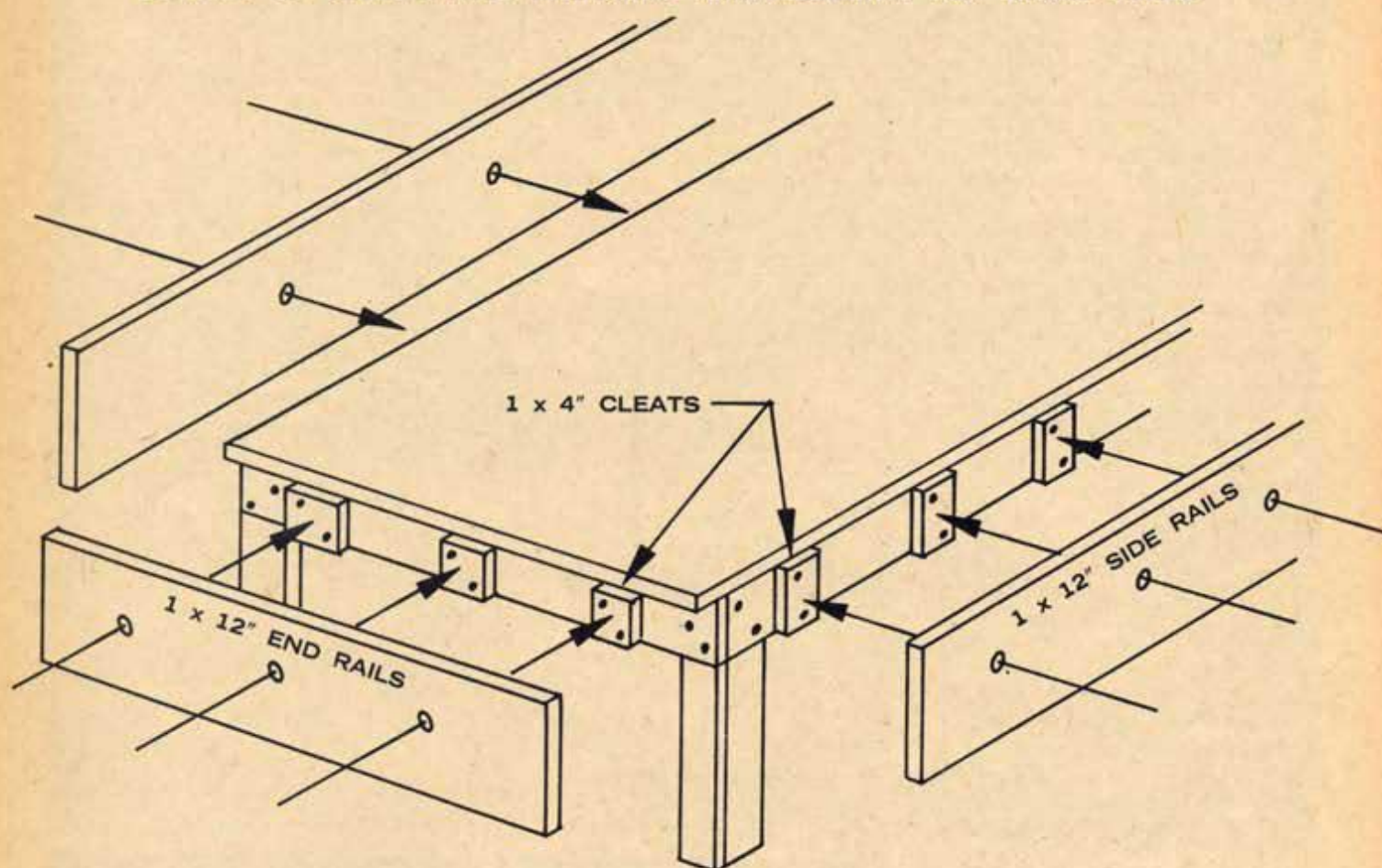


1. Screw the 1 x 4" cleats to the siderails of the table. Fasten the 1 x 12" walls to these cleats.



2. Note the 1 x 12" walls surrounding the table. The high sides act as retaining walls also.

DETAILS OF CLEATS AND HIGH-SIDE ARRANGEMENT FOR BASIC TABLE



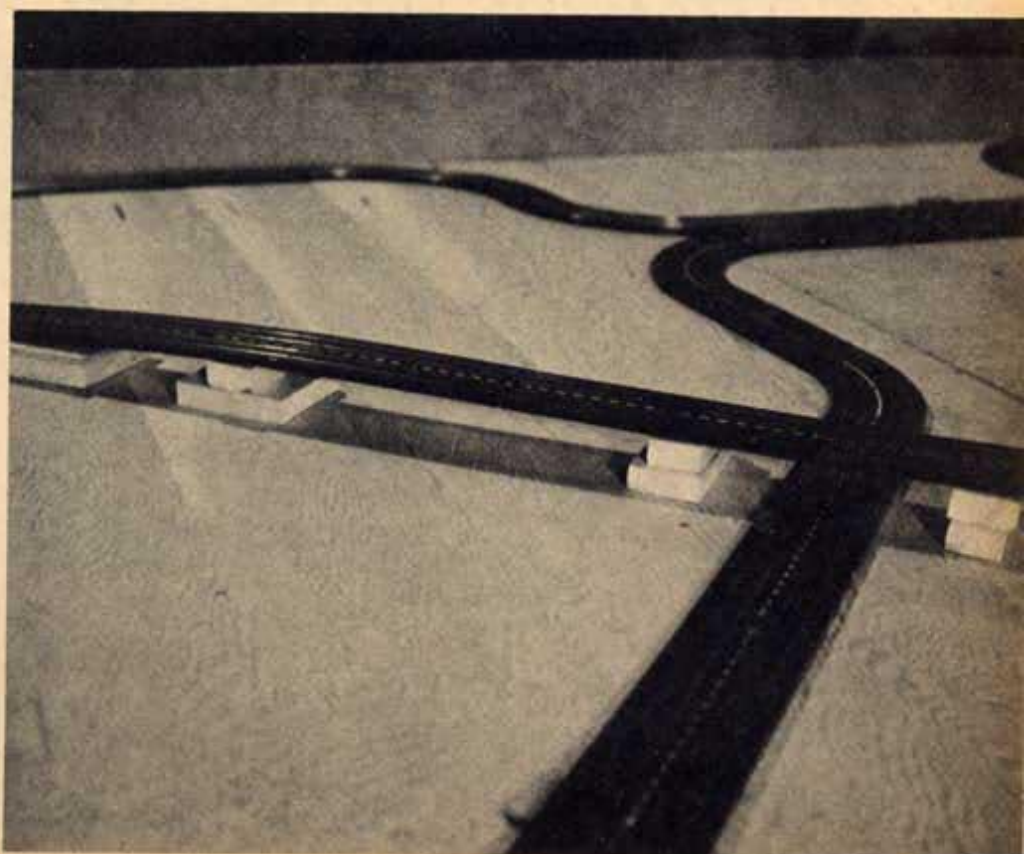
Build cleats out from the siderails of the main table, until the cleat extends past the edge of the 8 x 4' plywood table top. Then screw the 1 x 12" high side rails to the cleats.

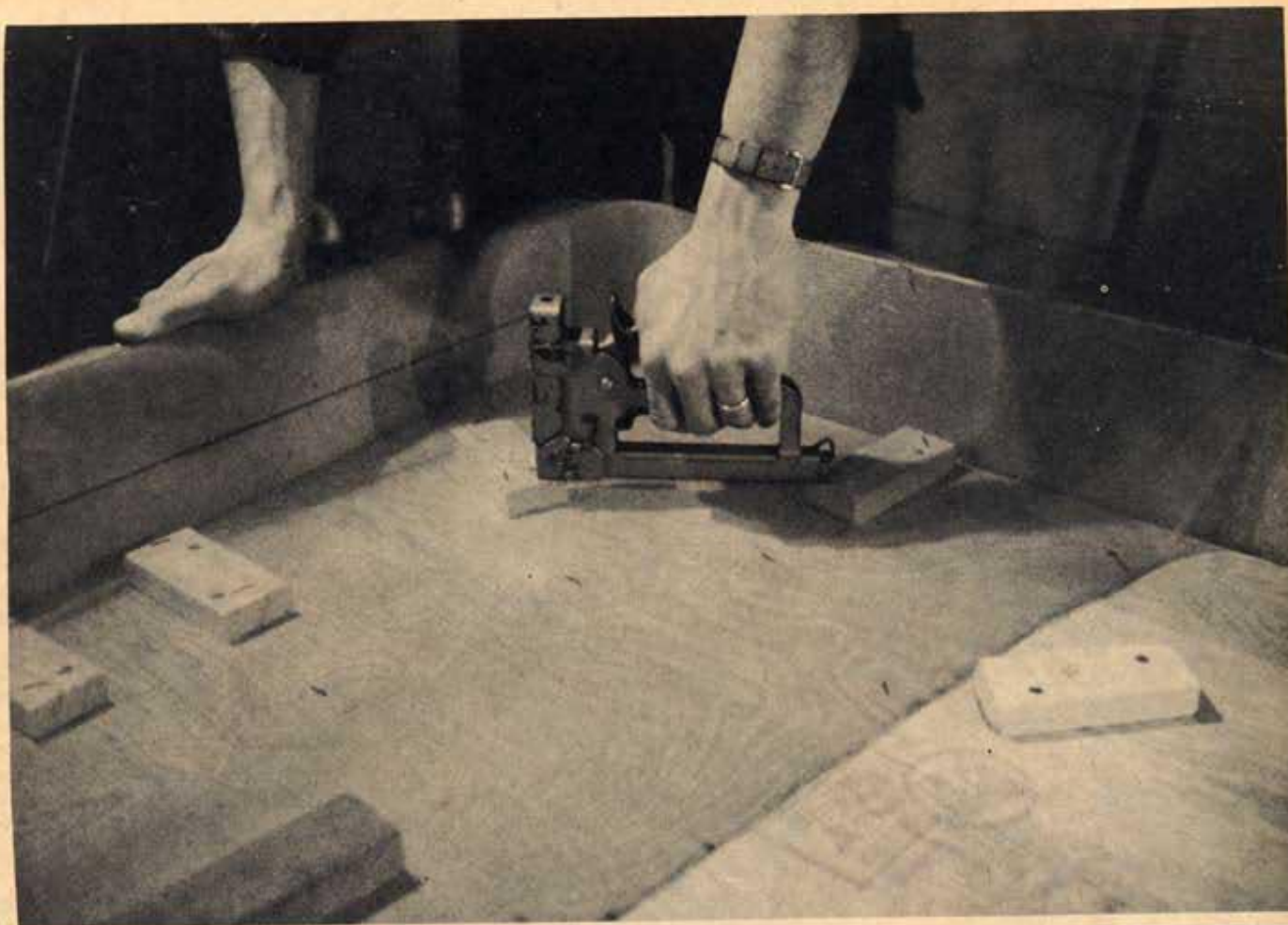
Test the rigidity of the actual track by laying your hand on the roadway and pushing it down gently. If you get a lot of flex, install several more supports beneath the sections of track until it is very solid. I inserted several more in mine, especially on the crossover area, which seemed to be the weakest spot. See photo number three. Screw the supports to the plywood table top with 1 1/4", No. 7 flathead wood screws.

When all supports are securely positioned, and you are satisfied with the rigidity of the roadway, remove all of the screws holding the track to the supports, and lift all of the track sections up off the table and set them aside temporarily.

Buy about 40' of 24" aluminum screen-

3. If the roadway is not as rigid as it should be, insert as many supports as necessary.





4. Staple the fine wire mesh to the wood track supports, making sure it lays flat over the block.

5. Reposition the track sections over the wooden track supports. Secure with the screws.



ing at your local lumber yard. It sells for about 14 cents per foot in that particular width, and you can get wider or narrower screen, to suit yourself.

I covered my entire table with this screening, starting at the extreme end of the longest table, placing the screening crossways on the table. You can cut the screen with an old knife.

You must purchase, or rent, a stapler. They are very inexpensive, and you can look them over at the lumber yard when you buy the screening. Use small staples.

Staple one end of the screen to the top rail, across the entire END of the table, but not along the SIDES of the table. Push the screen down into the corners of the table, making sure the screen lays flat across the wooden track support blocks. Staple the screen securely to these blocks. See photo no. four. Now

work across the entire width of the table. Slip a wooden block of any height under the screen, here and there, to form small, rolling hills. Finally, staple the ends of the wire mesh securely to the side rails of the table.

When you have covered the entire table with mesh, screw the track back in place over the wood track supports, as shown

in photo number five. You will note that the screening barely shows up in the photo, as it is extremely fine wire.

Next month we will finish up our HO series with a thorough, step-by-step run-down on applying the landscaping material, trees, grass, etc. Also, we will finish our proposed lake and pit area.

Drop in and help us next month, O.K.?

MODEL CAR SCIENCE

A 1/32 Contender from COX!

LET COX PUT YOU IN THE DRIVER'S SEAT

By Raymond E. Hoy

What a pleasure to see a new company turn out such beautiful equipment for "openers." The L. M. Cox Manufacturing Co. can hardly be classified as "new," except to the slot racing industry. They have been in the model airplane field for years, turning out high quality motors.

You are probably familiar with the first two offerings from Cox, by this time. Their 1/24 Ferrari and BRM Grand Prix machines are the talk of the slot racing world.

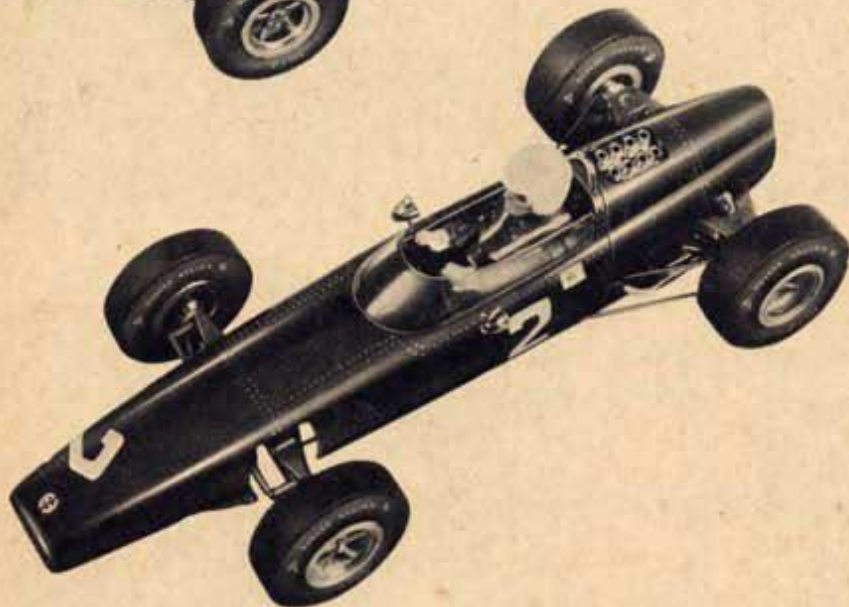
Now Cox roars into the world of the 1/32 fanciers with a car that will make the most hardened enthusiasts perk up their ears. The new 1/32 Ford GT, by Cox, features a chromed, Mabuchi based motor with Superflex wires, a superbly engineered chassis, and detailing that will make even a "scratch-builder" jealous with envy.

From the Cibie high speed driving lights in the front, to the rear end "spoiler" it is a beauty!

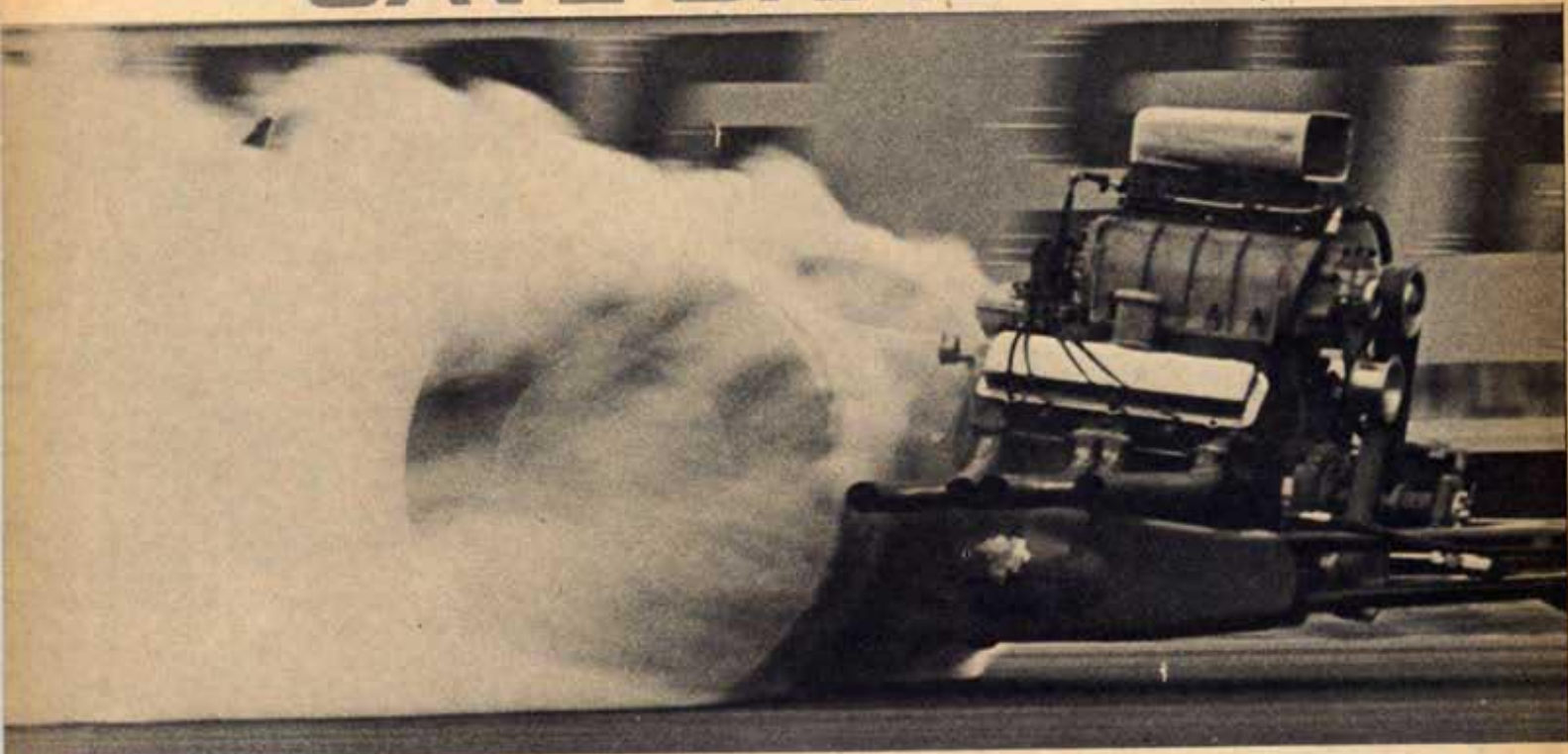
For the attractive price tag of \$6.98, you can't go wrong!

The first Cox entries were these two beautiful 1/24th scale G.P. cars.

And Cox's smashing entry into the 1/32 field is this Ford GT coupe.



SAVE DRAG RACING



Gear Shift Trick Puts Excitement Back Into **DRAG RACING**

TWO ENGINES ROAR as the crowd leans forward with excitement. The lights dance crazily down the "Christmas Tree," clutches snap, tires scream and smoke . . . two high powered dragsters lunge forward in a mighty effort to reach the end of the dragstrip in the least possible time. The drivers snap-shift to prevent their engines from blowing themselves apart. The four-wheeled projectiles stand on their rear wheels and almost disappear in a cloud of smoke. The scene: the famous San Fernando dragstrip in Southern California.

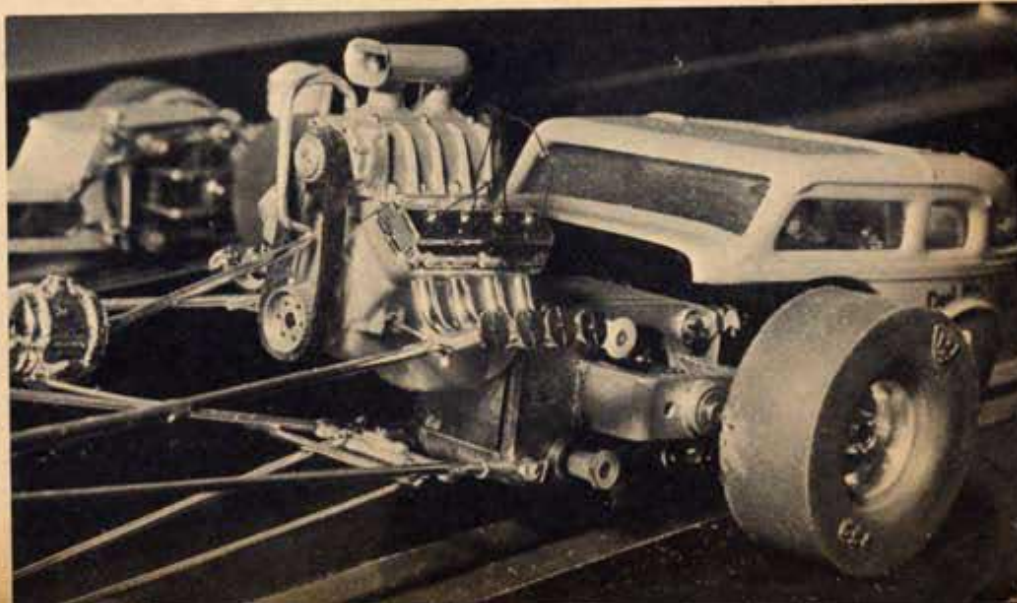
Turn the page of your mental book and you are now in a room at the end of a 55 foot model car dragstrip. Two shiny dragsters are lined up at the start, the switch is "dropped" and ". . . zip . . ." in less time than one can say "one thousand" the cars become a blur and wind up in the deceleration zone. Fantastic performance, yes, but gone is the realism. The constructors of these model dragsters just stand with hands in their pockets. The human element, the most important ingredient in a race, is gone. Mechanical monsters, amperage and dollars have taken over.

Exaggeration, you say? Day after day

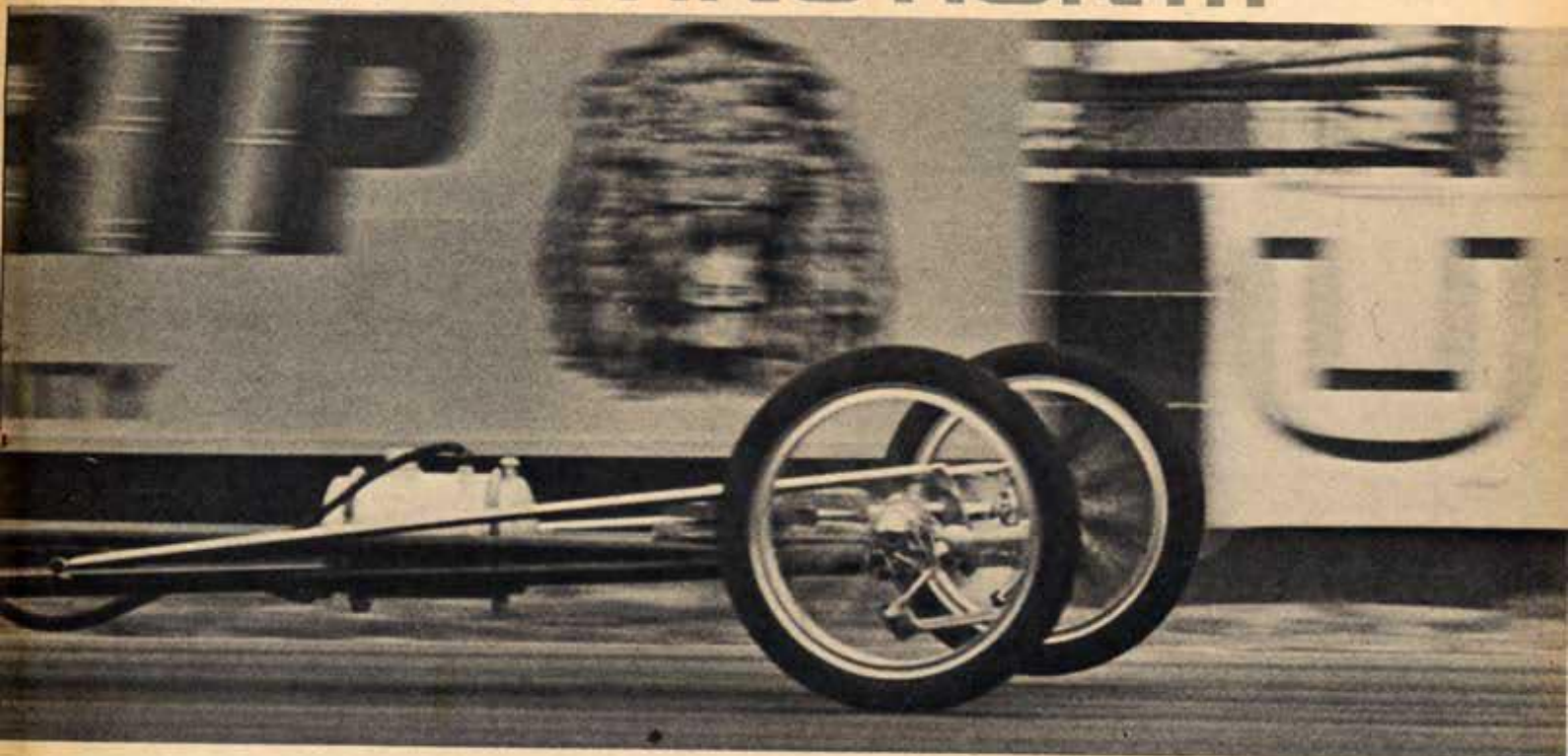
By George G. Siposs

we hear of complaints from "average Joe" model builders that they have lost interest in drag racing. The most exactly built dragstrips are idle more and more because the ranks, of those who want to spend large sums of money to

stay among the leaders, are thinning. It is not uncommon to see an armature become a molten mass after a one-second run. The insane desire to reduce that elapsed time urges some to carry on, however, most builders get discouraged. Psychiatrists would analyze their problem thusly: "Lack of motivation due to lack of personal challenge and insufficient feeling of achievement." Fancy language



FROM EXTINCTION...



for saying that the driver wants to feel a certain one-ness with his car. Road racing requires split second timing and judgment, missing in drag racing. The simple remedy then is to let the driver do something which closely resembles actual racing action.

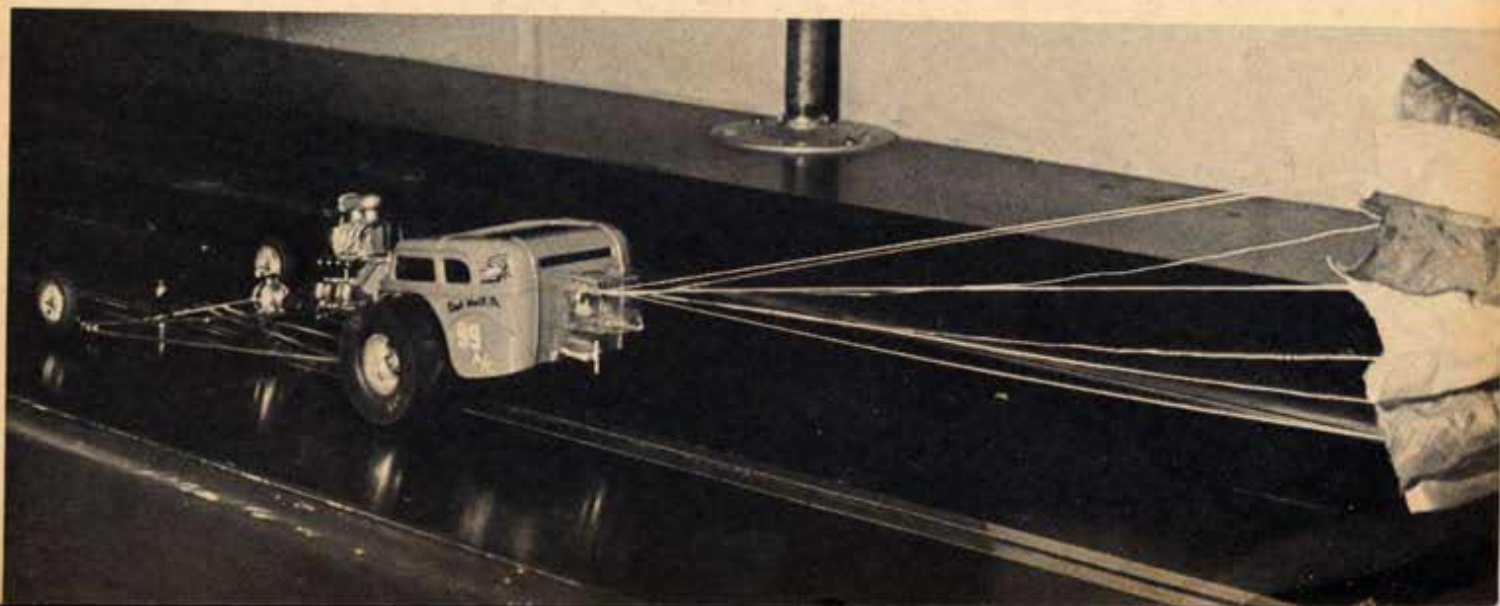
In order to extract the most power from their engines, racing drivers use the gears to change the RPM's. High RPM's mean more horse power but over-revving means disaster. The challenge between machine and man is the fact that the driver has to know his upper RPM limit and when he reaches it, to shift into the next lower gear. During shifting, the clutch disengages the engine from the wheels and they are not powered. Split

second shifting is imperative to keep the power flowing from the "mill" to the pavement with a minimum of interruption. Too fast a shift will clash the gears while too slow shifting will lose the race.

In this article a novel system is proposed which is aimed at introducing the human element into model drag racing. The idea is very simple and any average modeler can make the necessary parts. Here is how it works: a simple selector switch shunts electrical power to successive (separated) sections of the dragstrip. The driver shifts the power from one section to the next as his car races down the strip. His timing has to be perfect to keep up with the progress of his dragster

otherwise time will be lost while the motor is not supplied with current. A switch has to be made for each racing lane.

To make the switch, mount a metal arm on an insulator board. (See drawing.) The arm is electrically connected to the power supply. Depending on the number of shifts you want to do on the drag run, mount a corresponding number of electrical contacts on the insulator. For the sake of simplicity, let's consider one shift per run. Two contacts are mounted on the insulator: one for starting and one for "high gear." The power tape along the slot is interrupted for approximately 1/8" at one point, say 10 feet from the start. A wire leads from each



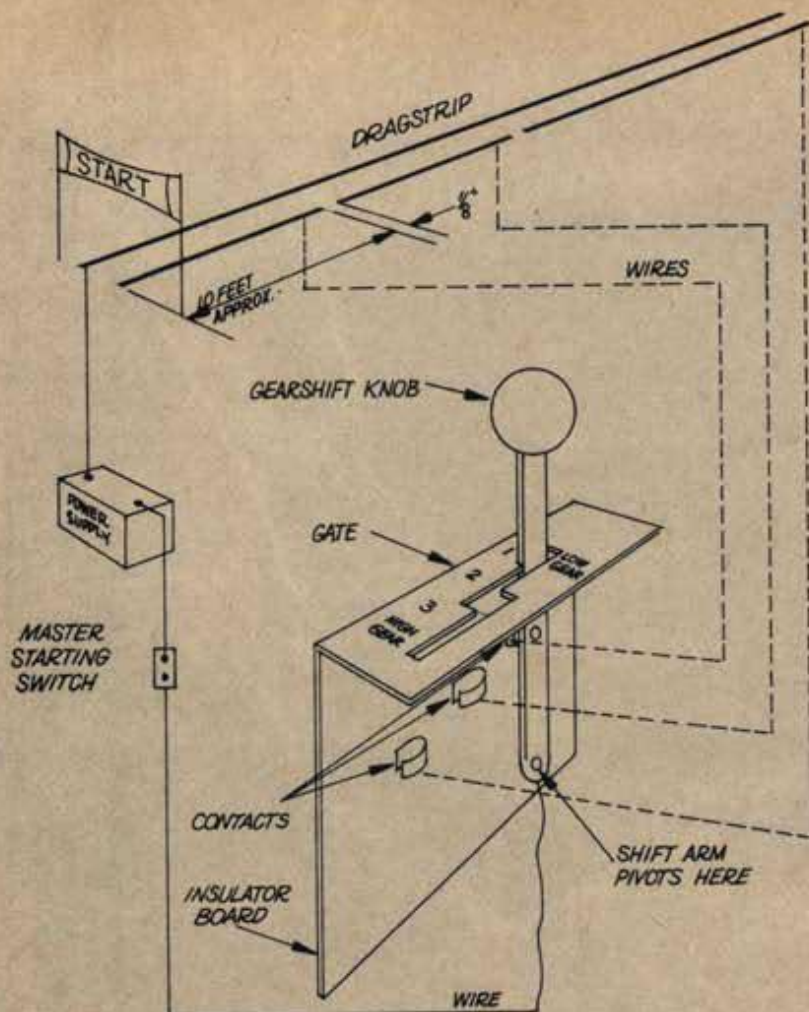
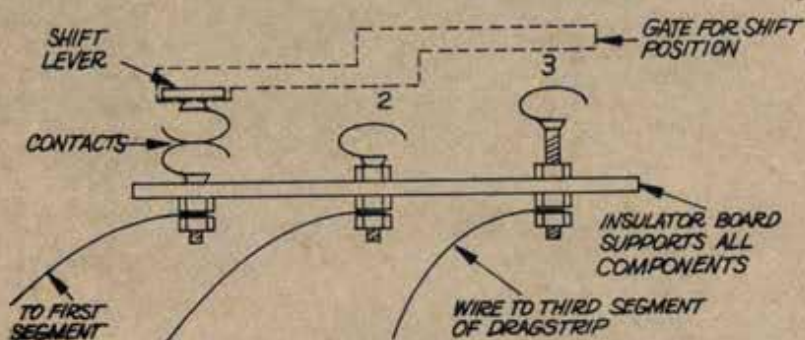
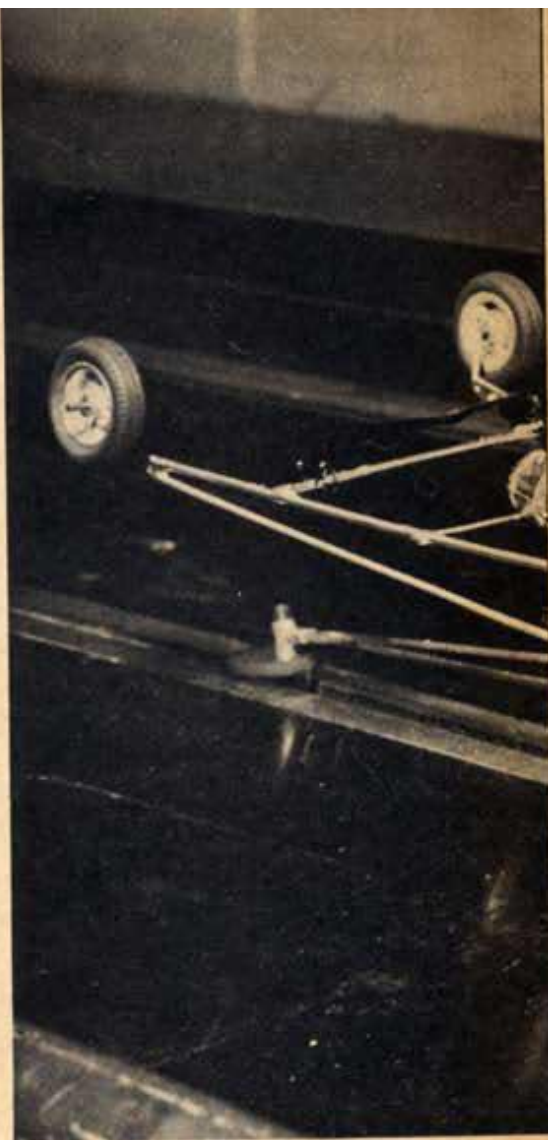
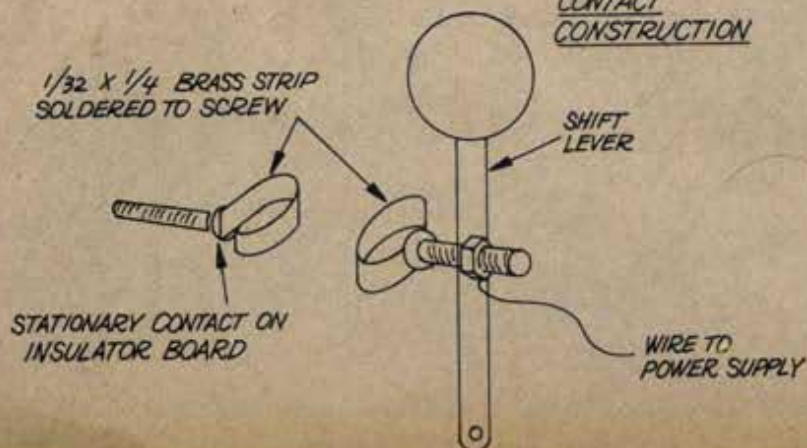


ILLUSTRATION SHOWS "3-SPEED GEARSHIFT"

TOP VIEW OF SELECTOR SWITCH

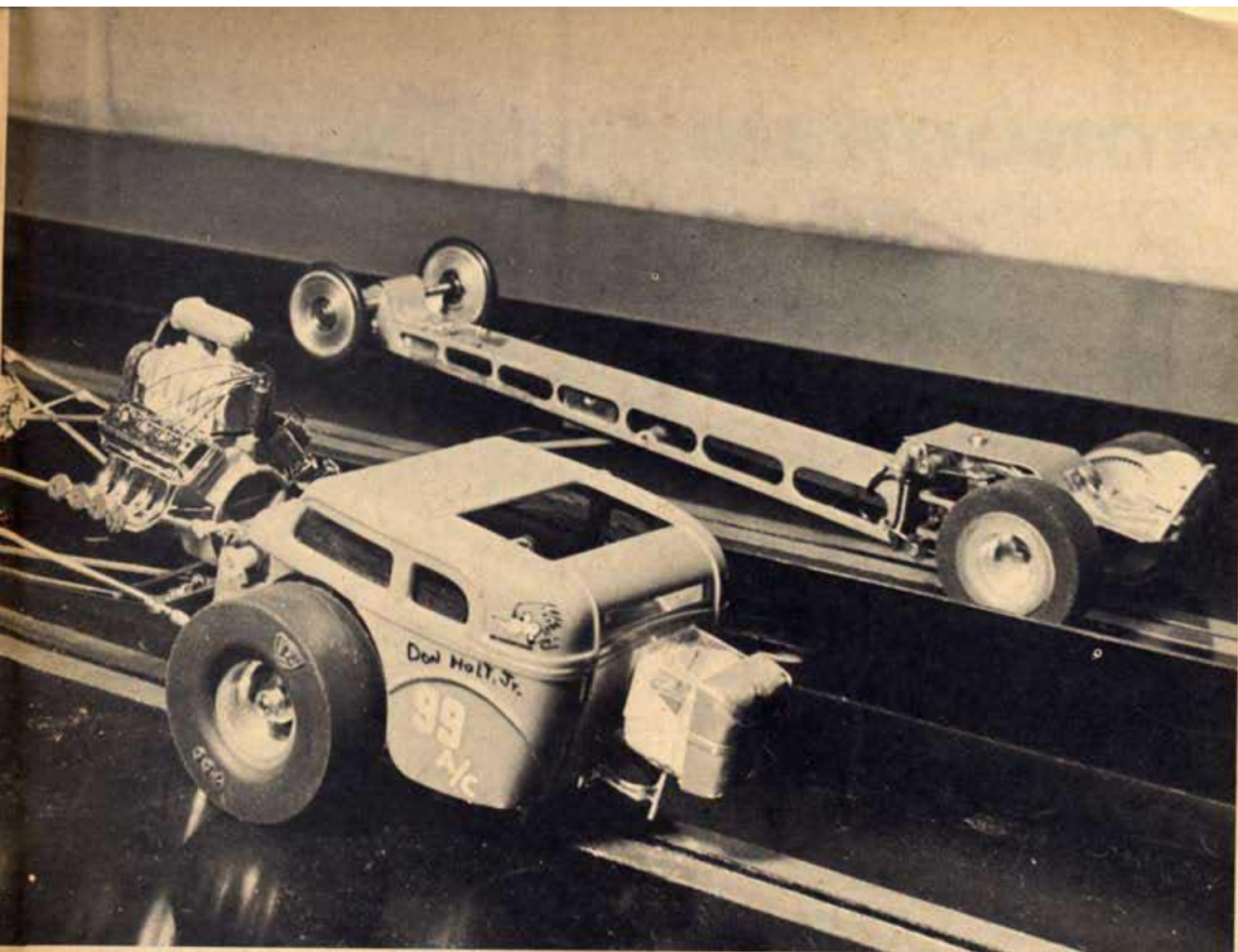


CONTACT CONSTRUCTION



section thus separated, to each contact on the switch. The operation is simplicity itself. When the master switch starts the cars, the selector switch supplies power to the first section of the dragstrip. At the proper instant, the selector switch is shifted over to the other contact which now supplies current to the second section of the dragstrip. Shift too soon and your power is cut for a fraction of a second on the second segment. The system is foolproof in that it cannot burn out the car or power pack if an unskilled driver handles it.

Modifications can be made to make the system more realistic. If you divide the dragstrip electrically into three or four segments, (and make the corresponding number of contacts on the switch) regular three or four shift patterns can be built into the "gear shift" to closely approximate driving a real car. A "gate" can be made for the switch arm which makes it necessary to shift over to the next notch just like the regular "H" pattern on cars or, the "progressive" shift on racing gear boxes. The contacts are made by soldering 1/32" thick x 1/4" wide brass strips to the heads of flat head screws and shaping them suitably so that the switch arm will slide



over them easily in both directions. Two jam nuts secure the screw to the insulator board permitting alignment of contacts. Connecting wires can be secured to the threaded parts of the screws on the outside of the switch. The switch lever can be shaped like a real gear shift knob.

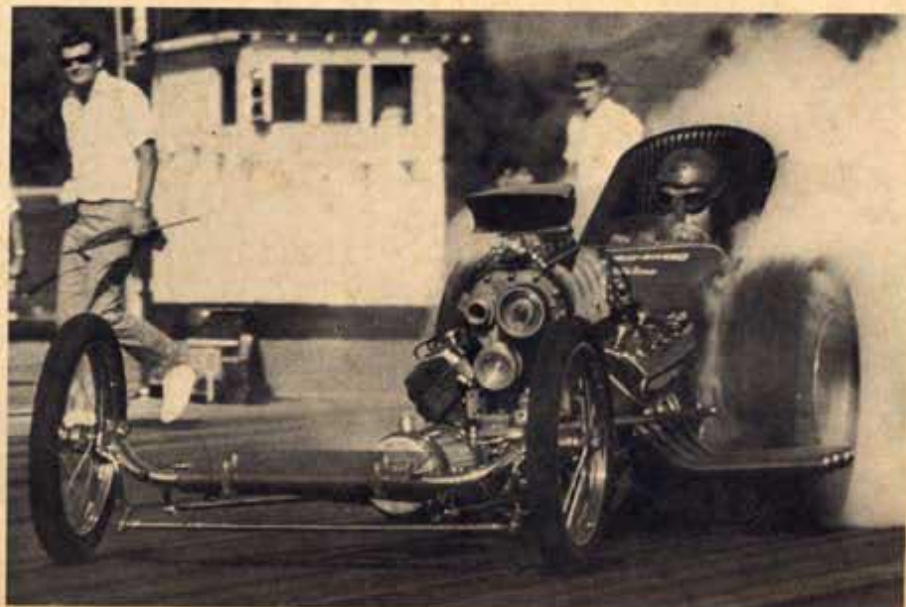
(It is obvious that a very simple arrangement can be made to bypass the selector switch, restoring uninterrupted power to the dragstrip if you wish to have conventional operation. There are regular "Christmas Tree" starting lights and winner indicator lights on some more advanced dragstrips and if a sufficient number of our readers would like to construct such an arrangement we shall publish the circuit diagrams.)

More efficient car components will lower elapsed times but they cost more money. The top of the field consists of people who can afford to blow a motor for almost every run. Thus the average guy gets discouraged. If we are to save this sport from extinction or from being a sport only for the select few who can afford it, we have to do something which will equalize chances for everyone. With a gear-shift system the driver of a less efficient car has to practice more to match the superior performance of the

super-specials. When the pressure is on during tough competition it's the sure hand and iron nerve that will win, not that "ball-bearing, current-gobbler."

The selector switch-gear shift arrangement as described above is really simple to construct since no relays or solenoids are used. It does bring the human ele-

ment back into drag racing since it is no longer sufficient to have someone build a "super-car," the driver's skill is the deciding factor when the two cars start down the strip. When your name goes up on the board as "Top Eliminator" you'll have the satisfaction of having driven your little creation.



MONOGRAM — RUNNING WILD

THESE ARE THEIR NEWEST RELEASES



Scale swap! The Porsche 904 in 1/24th scale, and the Ferrari 275P goes to 1/32!

By RAYMOND E. HOY

THE HOBBY INDUSTRY Trade Show, held recently in Chicago, was used as a spring-board by Monogram to blast their 1965 products into orbit.

Since Monogram originally introduced their offerings to the slot racing world, they have evidently been working like beavers behind the high secret walls of the factory at Morton Grove. Their products will cause the most jaded enthusiast to drool!

A look at the 1/32 class finds beautiful Lola GT Prototype, (kit SR 2409) and a 275P Ferrari, (kit SR-3207) both of which sell for \$5.98 in kit form. Either of these machines will make a welcome addition to the 1/32 fans stable. Even more exciting is the introduction of just the *body kits* of each of these models, for \$1.00 each. These kits come with decals, chrome plated parts, racing driver, wheel inserts, etc., and real rubber tires, and make up into an excellent

static shelf model. Better than that, the body has mounting lugs and brackets that fit the racing frames exactly, and thus can be screwed to any 1/32 scale Monogram racing frame. For that matter, modifying the new body kits to almost any racing frame made by any manufacturer should be a snap. When you can buy super-detailed body kits complete with accessories, for \$1.00, that's news!

In the 1/24th line, we find the roaring

Reventlow rear-engined Scarab, which A. J. Foyt used to blow off the worlds finest at Nassau. This complete kit sells for \$6.98, and believe it or not, Monogram offers the same advantage to the 1/24th scale purist — a completely detailed and equipped body kit, for \$1.50! (PC 124).

Overwhelmed? Don't quit yet! The popular 1/32 scale Porsche 904 coupe has been reproduced in 1/24th scale! Kit SR 2410 sells for \$6.98. This kit is not available in the shelf model variety, but maybe enough letters to Monogram's Jack Besser would produce results.

We're just warming up. To match their earlier classic cars in 1/24th scale, Monogram has introduced the 1931 Rolls-Royce Phantom II, Henley Convertible, (kit PC 109) which sells for \$2.98. This shelf model could be converted to slot racing quite easily, although it may cause some raised eyebrows. Nobody in their right mind would risk a Rolls,



Kit SR 3207, the 1/32 scale Ferrari 275P matches its big brother for beauty.



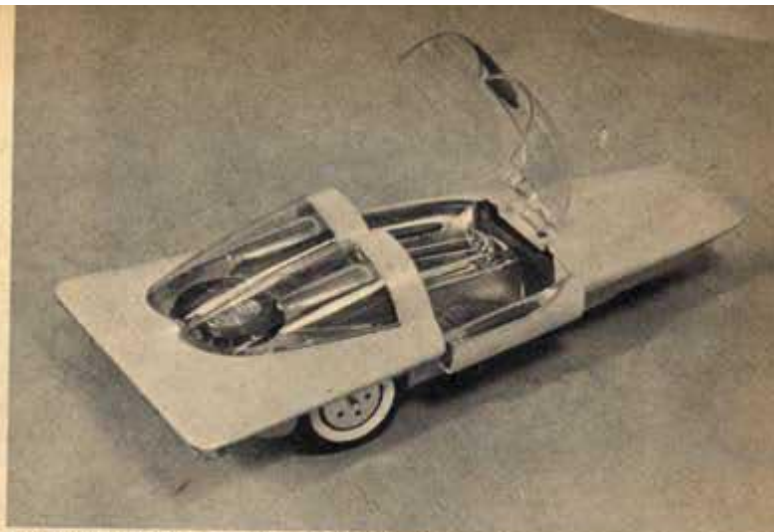
1/24th scale again — the Rolls Phantom II, kit PC-109.

Big Porsche, Little Porsche, Big Ferrari, Little Ferrari, thank you Monogram!





1/8th scale playmate for the E-Jag, kit PC 126, the Corvette Stingray.



Another world! Darryl Starbird's 1/24th scale "Futurista," kit PC 108.

even a model Rolls, in a race! Needless to say, the kit reflects years of model making experience by Monogram.

Another 1/24th scale shelf model is the Futurista, designed by Darryl Starbird, one of the nations top automobile stylists and Monograms custom consultant.

This little beauty features a steering stick inside the model that actually controls the single front wheel. The bubble

top may be raised and lowered, and the doors open and close also. The highly detailed Volkswagen engine (!!!!) is removable for display on a clear plastic stand provided in the kit. Price — \$1.50! (Kit PC 108).

Last, but far from least, is a playmate for Monograms big "E" Jaguar — the Corvette Sting Ray, reproduced in 1/8 scale. This big beauty is as detailed as the big "E" and contains over 190 super-

detailed parts. The price is \$10.98, and it sells under kit number PC 126.

Although this is primarily an automobile enthusiasts magazine, we believe we should not fail to mention a new airplane release by Monogram. Their new German Focke Wulf FW 190 fighter in 1/4" scale, makes a beautiful addition to the earlier 1/4" scale kits, namely the TBF Avenger, SBD Dauntless, F4F Wildcat, Spitfire, Messerschmitt, Zero, SB2C Helldiver, F6F Hellcat, F4U-4 Corsair, Hurricane, P-38 Lightning, and the P-40B Tiger Shark.

The new addition sells for \$1.00, under kit number PA 107. Detailing is terrific, and the kit features a great many accessory kits.

The new releases leave us a little breathless. Monogram is giving the customer what he craves — excellent, detailed kits that are *exactly* on scale, and at a reasonable price.

All we can say, Mr. Besser, is . . . MORE PLEASE!



Monogram's engineers have accurately reproduced the Scarab (top) and Lola (bottom) in every detail. These two tigers feature the popular X-100 motor and join the existing stable of sports cars which include the Porsche 904, Ferrari 275, Cooper-Ford and Ferrari 250 GTO.



1/4" scale German Focke-Wulf FW 190 fighter, kit PA-107.

The 1/24th scale Porsche 904, alone in the spotlight.



SLOT RACER'S

Work Shop

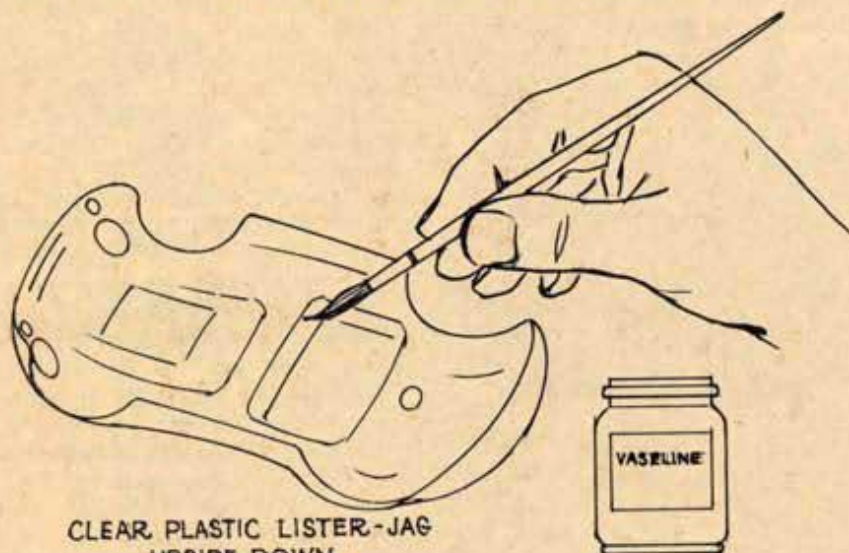
NEW IDEAS IN RACING MODIFICATIONS

PAINTING YOUR PLASTIC BODIED CARS-THE EASY WAY

By Raymond E. Hoy

The toughest part in building most models is the painting. To the average enthusiast, this step is sometimes faced with a certain amount of dread. A paint

job can make the difference between a really sharp looking model, and one that is almost ignored, even though the rest of the workmanship may be flawless.



I have always had a tough time detailing around the windows, trying to get a neat, straight line. I hate to mask everything off, so I usually try to freehand it, and the results have usually been disastrous. I finally tried this.

Before you paint ANY plastic model, scrub it down in a pan of warm water with some household detergent. Rinse and dry thoroughly. Let's take a clear plastic body: After rinsing and drying, rough up the inside of the body with fine sandpaper and blow it out good. Don't rough up any area that is supposed to be windshield or side glasses, of course.

Obtain a small jar of Vaseline. Use a small brush and apply a thick layer to all "glass" areas, such as windshield, side & rear windows. Use a "Q" tip to wipe off any excess. After you have it all covered, just go ahead and spray the inside of the body with paint. When the paint is dry, take a piece of cotton and wipe the vaseline off. Your windows will sparkle!

BRICK WALL EFFECT

by George Siposs

There are a large number of race courses which wind their way through city streets. Road race courses wind over and under bridges and near brick buildings. To simulate brick on your race course, take red cardboard and make parallel lines on it with ink, 1/4 inch apart. Then, make vertical lines on alternate rows, 3/4 inch apart. Cut the finished cardboard to suit the outline of the building or bridge, see illustration.



REMOVE YOUR MOTOR ARMATURE, WITHOUT REMAGNETIZING

There are also times, such as the night before a big race, when your motor needs work, that you know you just cannot remove the armature to perform surgery for the simple reason there is no place open, or nearby, that can remagnetize your motor in time. The armature must not be removed then, for the simple reason that your car would not have enough torque to beat the local track cleaner after you reassembled it.

Here's a way you can remove the armature, work on it for up to an hour, and reassemble it without remagnetizing!

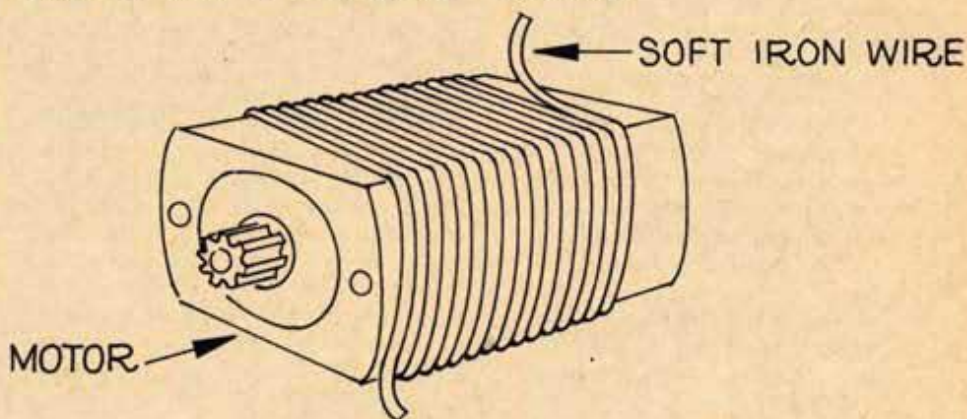
Remove the brushes. File the tab, or bend it, depending on the motor design, and remove the end plate that is on the opposite end of the motor from the magnet. This will allow removal of the armature. **BEFORE** you remove the armature, however, start at the

magnet end of the motor and wrap the entire motor with soft iron wire. Wind the wire clear up to the front of the armature. **DON'T WRAP IT TOO TIGHT**, as you want to be able to slip the armature out of the soft iron "cocoon" without changing its shape.

Slip the armature out and work on it. The soft iron wire will retain the magnetism for about an hour, and the

armature can be slipped back in and the wire removed. Reinstall the end plate and brushes. You may have to solder the end plate back in position where the tabs used to be.

If you live in an isolated local where remagnetizing is not done locally, and you don't want to send it away for a week or two, you can use this trick successfully.



BUILDING A TUNNEL WITHOUT A MOUNTAIN!

No, I'm not pulling your leg. Here is an idea that will add an immeasurable amount of interest to your circuit, without increasing table size.

Instead of having a straight run

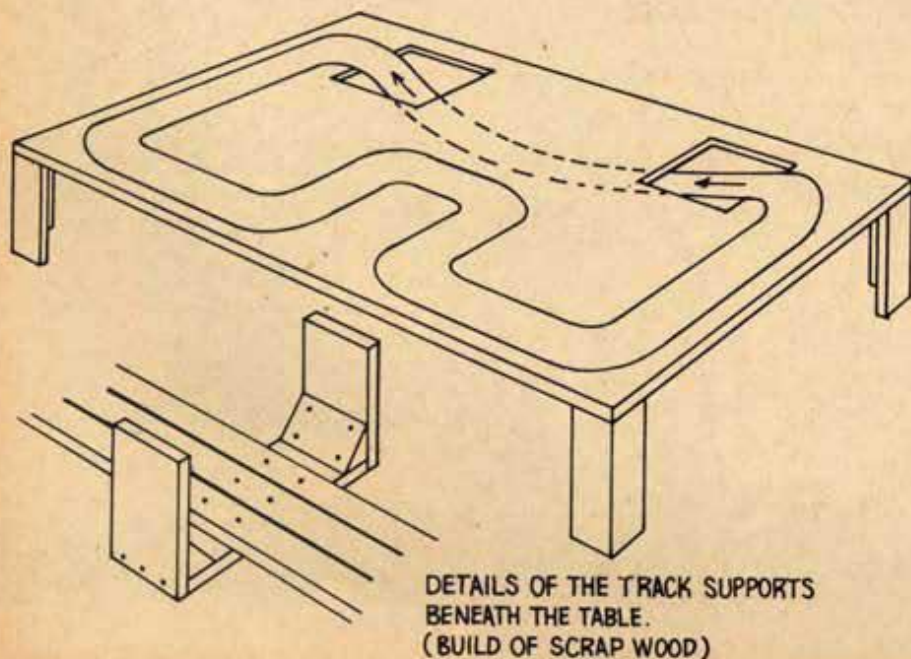
By Raymond E. Hoy

across the TOP of the table, how about providing a slot at one end of the table where your track can dive down under

the table, and run its full length before reappearing up out of a slot at the far end of the table? It provides the hairiest racing you could imagine. The slots at both ends of the table must be the width of the track, and just long enough to enable the drivers head to clear the top of the table as it disappears below the surface.

The track that runs below the surface of the table can be made of 3/8" particle board, which has enough "body" that it needs nothing more than the hangers shown in the drawing, to support it.

When three or four cars disappear into the "hole", everyone remains breathless until they see them reappear at the other end of the table. A hairpin should be located close to the "Exit" hole, so fast reaction time is called for when the cars reappear. You must not only identify your car immediately, as it reappears, you must brake for the corner. Here's racing at its best!



MCS

Spotlights: TRACK of the MONTH

TOM THUMB Raceways

By PHIL GLICKMAN

I HAVE VISITED quite a few racing centers to date but got the surprise of my life when I strolled into the Tom Thumb Family Center in San Fernando Valley, California.

As I entered, I had the impression of stepping into a plush Las Vegas Hotel and Casino. Modern color schemes of orange, white and gold, blended with complimentary colors of red and blue. Hanging on the walls were murals of impressionistic racing scenes. And spread before me was the "wildest" layout I've

ever had the pleasure of viewing.

Standing there, with my lower jaw suspended, I attracted the attention of Sander Spero, an executive with the Tom Thumb Family Hobby Center. And it wasn't long before I had a story.

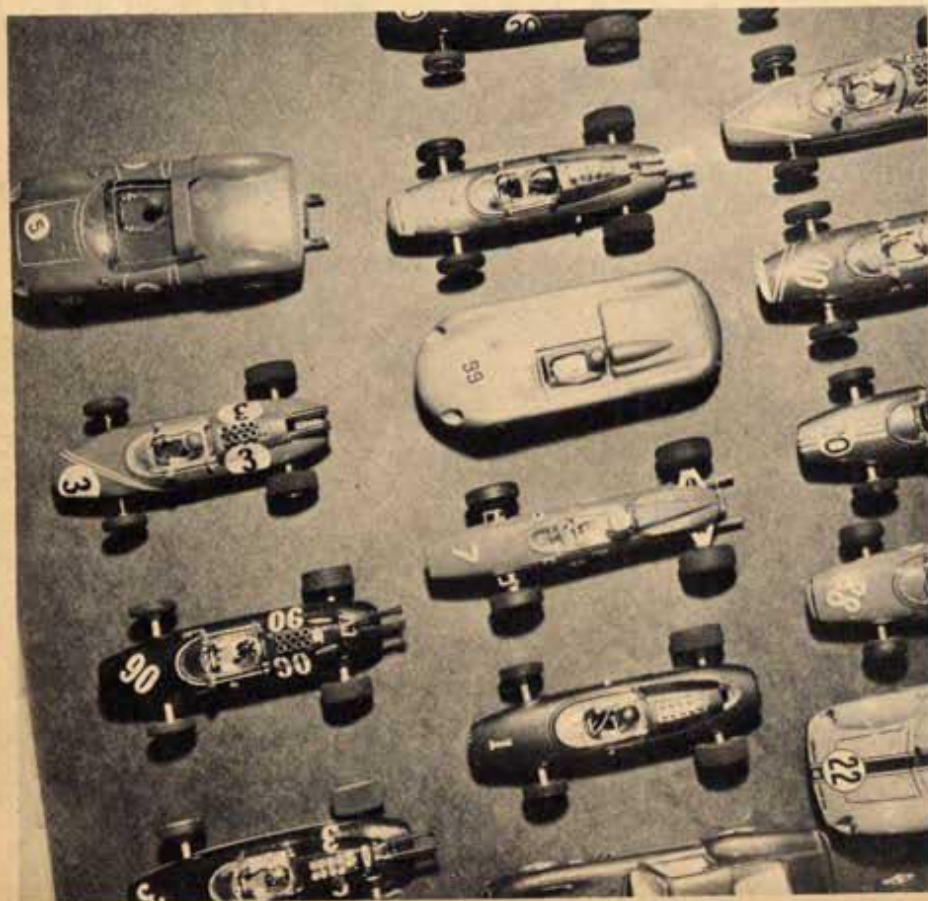
Physically, the Tom Thumb Hobby Center is only 7 months old, and housed in a custom designed building containing 6800 square feet of floor space, and constructed specifically for the sincere slot racing buff.

Fluorescent lighting bathes each foot

Exterior of Tom Thumb shows some of the parking area.



Jack Tate registers contestants on race night.



of the racing area and 5 tracks offer every type of challenge imaginable to the model car enthusiast.

On the thick carpeting rests comfortable arm chairs for spectators, and one portion of the center is devoted to a hobby shop, stocked with a complete line of car kits, accessories, and related crafts.

From a simple figure "8" track to a 150 foot high-speed racing course, each track can accommodate 8 cars in either 1/24th or 1/32nd scale.

Not content with providing a "racing palace" for the public, the Tom Thumb Raceways holds weekly races, and a monthly "Grand-Prix" for the winners of the weekly events.

Basing the monthly contestants on a point accumulated average, the events are staged by Jack Tate, a veteran model car racer. And the prizes . . . kits, motors, tools, racing time . . . a fantastic array of "loot" for the winners.

High-speed road course where weekly and monthly races are staged.

Part of an evening's "Concourse d'Elegance" prior to racing.

MODEL CAR SCIENCE



Figure "B" track in foreground and sales area.

Rod McIntosh checks in for race with Jack Tate.

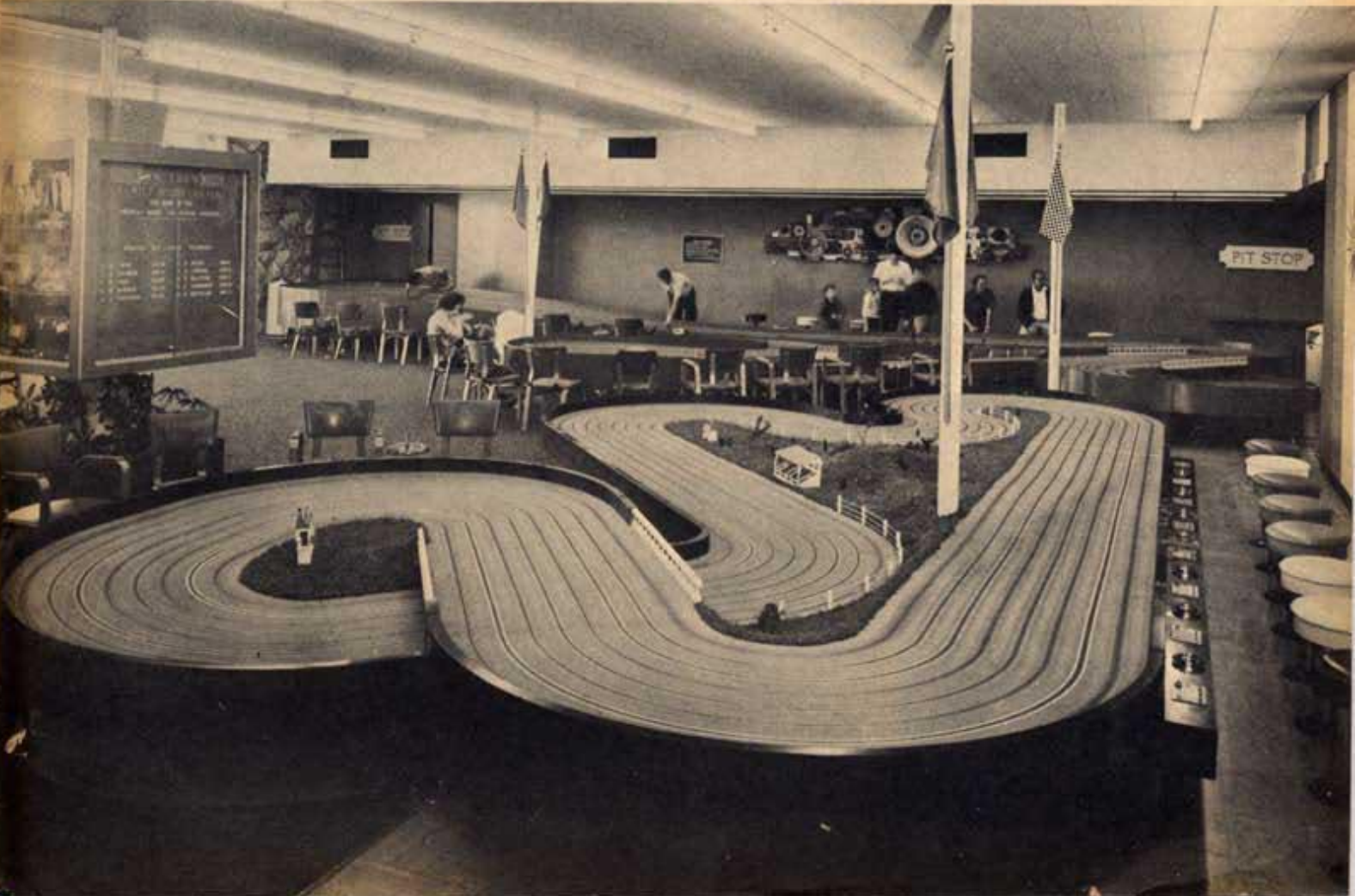


Figure "8" is eight lanes of dynamite.

(Last month's grand prize was a television set.)

A typical race night begins about 7 p.m. with contenders registering their cars with Tate. He checks each car, impounds it and assigns the driver a track and race number.

All cars are held by Tate prior to the races. During this time, he judges each car and awards ribbons in a "Con-course d'Elegance". Once the cars are returned to the owners, it's up to them to do the rest.

Tate mounts the stairs to the control panel where he can observe the high-speed race course. Before him is a maze of electronic lap counters, timers and clocks.

Stationed about the course are judges and marshals ready to assist each driver in the event of a "spin-out" or wreck.

Each event comes off without a "hitch".

On the night I observed the "Grand-Prix", wives and mothers, friends and casual observers were packed around the elaborate course, and it was fascinating to watch their reactions.

Credit for this amazing Center goes to Denny Dennison and Bert Lane, who prior to entering the field of model car racing, were merchandising and public relations experts.

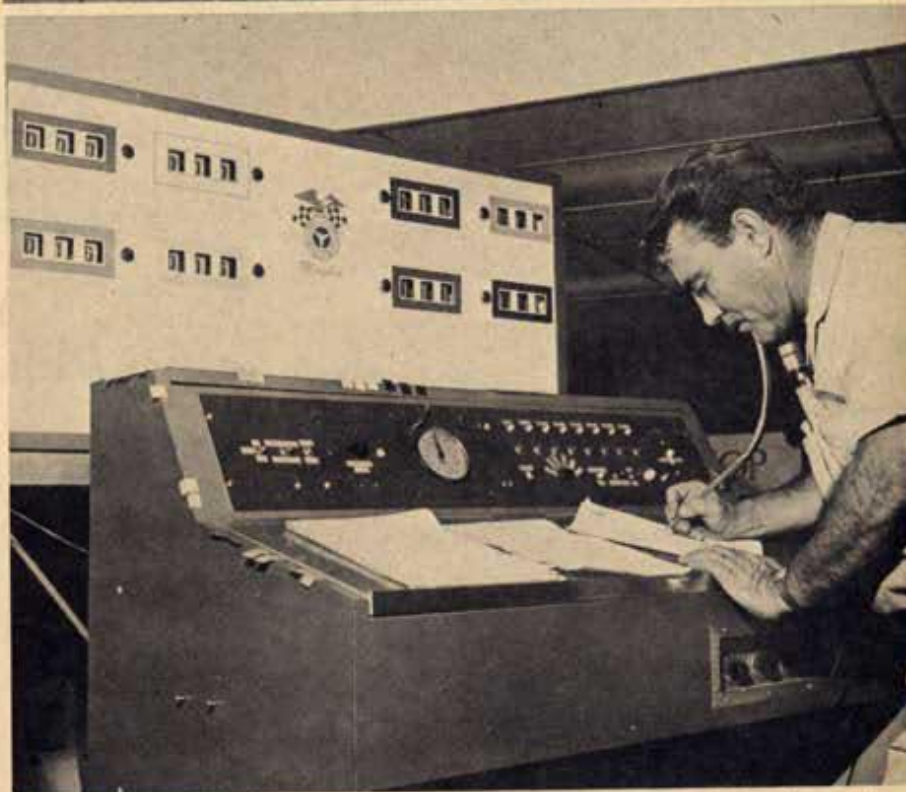
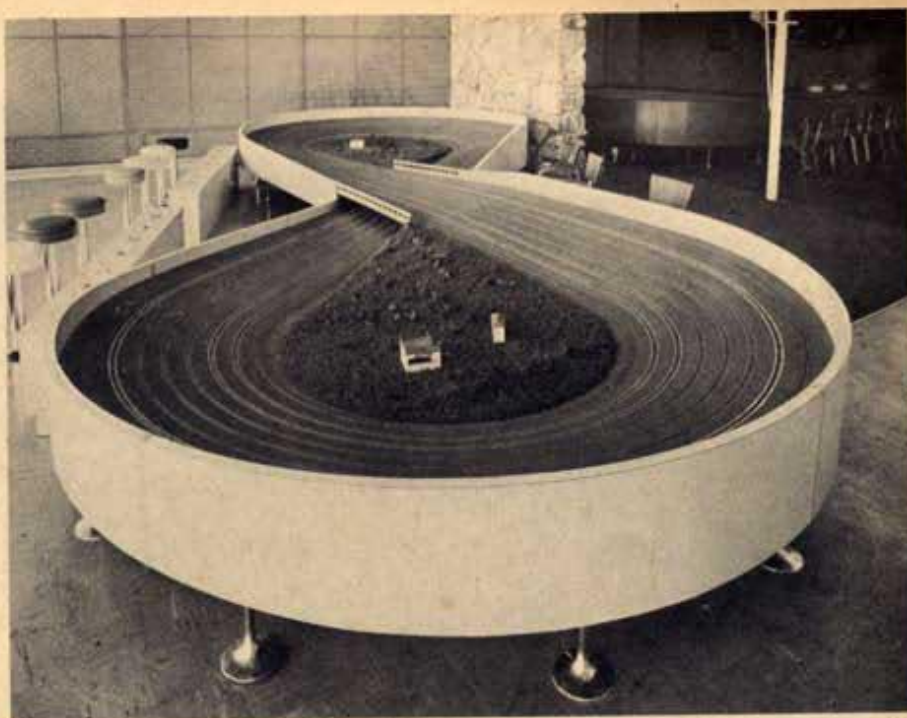
These men felt the need for a center that would truly personify this sport, and also believed that some form of mature sophistication was needed . . . and they have delivered it most vividly in the Tom Thumb Racing Center.

Dennison and Lane also manufacture all of the race courses used at Tom Thumb, and have set up plants in Los Angeles and Chicago to fulfill the needs and demands of the public for more and better race courses throughout the United States . . . and the world.

So . . . "Gentlemen, Start Your engines."

Even if it is 1/32nd scale.

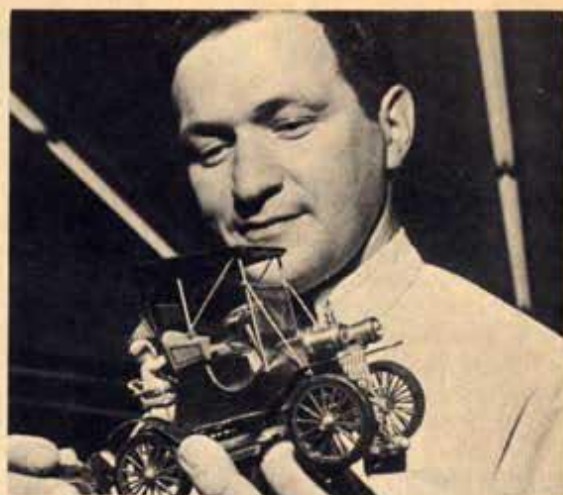
Contestant retrieves his car from impound before race.



Jack Tate checks results of races from stand. Lap counter clocks and recording devices are set before him.

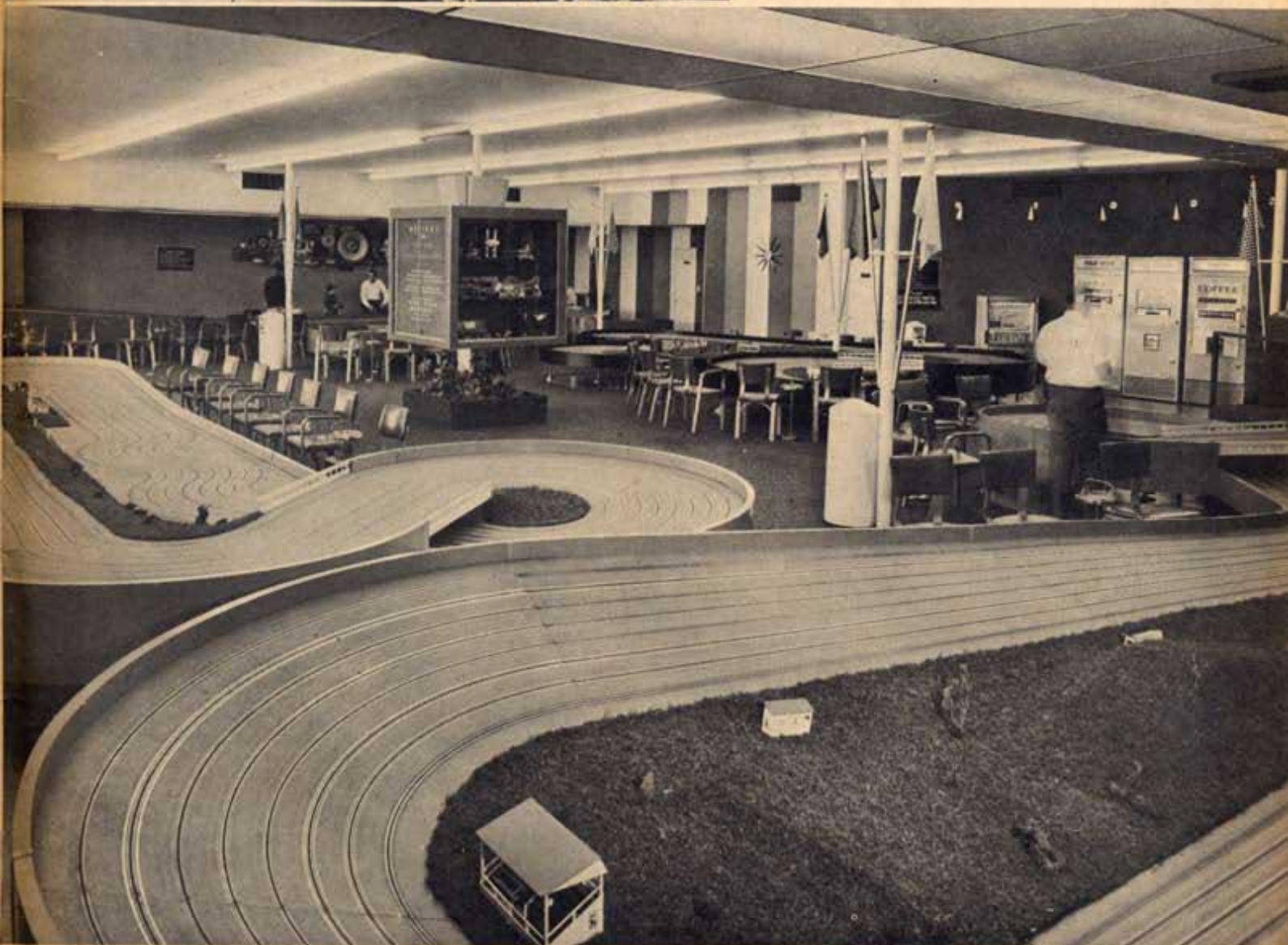


"Little Old Lady from Pasadena" in her 1901 Model "T" Ford plods around course. Note fringe on top.



Harold Deino, Director of Graphic Arts, ABC Television in Hollywood, makes last minute adjustment on his 1911 Maxwell.

Sander Spero, offers words of advice to young model car enthusiast on how to mix a Waldorf salad.



Interior of Tom Thumb shows red, blue, green and orange tracks.

K & B's TWO NEW WINNERS

The Porsche 906/916 and Ferrari 250 GTO

By **RAYMOND HOY**

They're at it again! Those busy fellows who produce the all-American cars in Downey, California. Yup, K&B! Two new machines have poked their handsome snouts through the front doors of the K&B plant, and have sneered fiercely at the competition. The competition had better pay attention too!

K&B has produced a new Ferrari 250 GTO coupe, and a Porsche 906/916 coupe for a running mate IN 1/24TH SCALE! You will notice the emphasis that I have placed on the scale! Unlike the gorgeous Ford GT coupe which K&B produces in 1/25th scale, the new entries are in the more popular 1/24th scale. My hat is off to K&B for this intelligent move.

And they are really something to see! Here are quality kits with a capital "Q"! The two cars share the same motor as the 1/25th Ford GT, the American made sidewinder that K&B calls the "Challenger." This is a powerful and extremely well-engineered unit that is capable of pulling off a win anywhere. The chassis is the same aluminum chassis that is underneath the 1/25th Ford GT, complete with swing pick-up.

*The K&B Ferrari 250 GTO/64 coupe.
It's as gorgeous as the real thing!*

*Porsche 906/916 Stuttgart stormer!
Teutonic efficiency!*

A new feature, however, is the new set of posi-lok wheels and axles. This new arrangement provides dead-positive positioning, and eliminates the age-old worry of losing a wheel at the wrong time.

The 1/24th bodies feature built-in, clear plastic windshields and windows, exactly like the 1/25th Ford GT. Detailing is very good.

The new kits seems to be very good. We haven't had a chance to give them a thorough "wringing-out" yet, but we are quite sure they will fulfill the promise. Price? \$7.00 each.

K&B also has a new "car caddy," a plastic carrying case that will hold three cars, plus bins for small tools, etc. The plastic is impervious to oils and solvents. The price is \$3.98.

A new hand controller by K&B features a heart of specially designed fuse wire. A Ni-chrome, wire wound resistor

handles high temperatures with ease. The ceramic core is epoxied to prevent looping. The handle fits the driver's hand comfortably, and it should be a good controller for long distance events. It is available in 25 or 18 ohm resistance, and each sells for a reasonable \$6.95. Quality hand controllers are hard to find. There are a lot of controllers on the market, of course, but you still have to look a little for real quality.

K&B also offers a sweet line-up of Goodyear tires, narrow and wide, in stock car form. These tires are gorgeous, and they lack nothing when it comes to detailing. \$.49 a pair can't be beat.

K&B of course, also offers a tremendous variety of wheels, axles, gears, and a multitude of small parts, besides other hand controllers. Their entire line is a boon to the slot racing industry. We like 'em!



Dynamic News

THE "WORD" FROM DYNAMIC MODELS

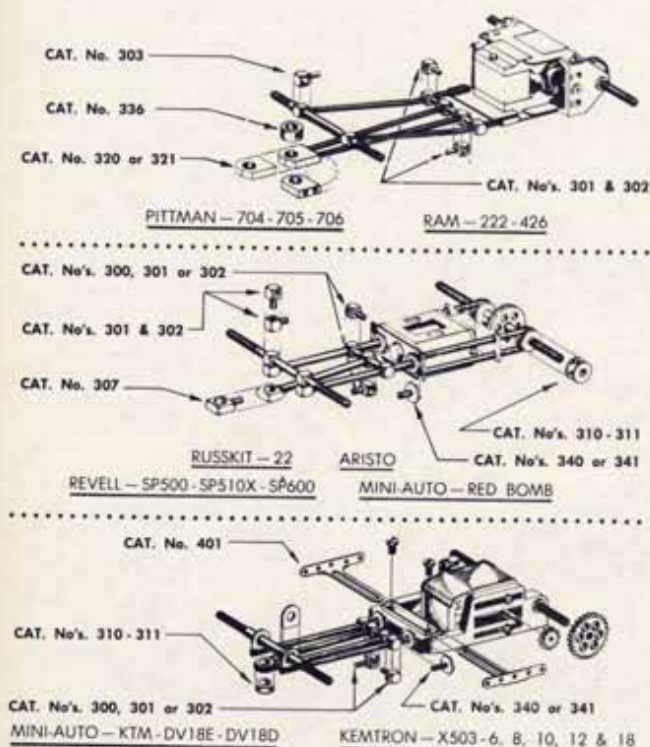
Vol. 2, No. 5

Van Nuys, California

May, 1965

GOT THE "ITCH TO SCRATCH"?

Custom Build Your Own Exclusive Design Chassis from these 18 Great New Scratch Parts!!



3 Examples of Suggested Scratch Chassis

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- SIMPLE INSTRUCTIONS ASSURE FAST, EASY ASSEMBLY

Now... you can scratch build your "exclusive design" chassis easier, faster and better than ever before. The chassis shown are typical examples of the thousands of chassis combinations possible with our new scratch parts and other interchangeable Dynamic Models components.

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ADJUSTABLE PILLOW BLOCK CAT. No. 330 \$2.25/SET NUT FOR 1/4" DIAMETER BALL, ROLLER or OLITE BEARING	ADJUSTABLE AXLE BEARING CAT. No. 332 \$2.25/SET NUT FOR 1/8" AXLE	WEIGHT COLLAR CAT. No. 333 \$1.15 ea. FOR 1/8" POST	WEIGHT COLLAR CAT. No. 336 \$1.15 ea. FOR 3/16" POST	COUPLER PLATE CAT. No. 340 \$1.15 ea. FOR 3/32" TUBE	COUPLER PLATE CAT. No. 341 \$1.15 ea. FOR 1/8" TUBE

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